The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees

VOL. LVI, No. 13 CHICAGO, ILLINOIS APRIL 1, 1911

CHRONIC URETHRITIS AND CHRONIC URETERITIS CAUSED BY TONSILLITIS *

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BALTIMORE

The tonsils have been made the scapegoat for so many human ills that one hesitates to bring another charge against them. For eighteen months past, since having my attention directed to the possible relationship between tonsillitis and certain cases of chronic urethritis and chronic ureteritis, the evidence has been accumulating with such force that I feel justified in drawing up the indictment and ask that the problem be taken under advisement and judgment passed on it after experience may have justified or negatived my claims.

In a comparatively recent paper, Rosenheim[1] has reviewed the literature and found the following list of ailments ascribed in certain cases to tonsillar infection: aneurysm, appendicitis, erysipelas, and a number of other skin manifestations, meningitis, iritis, pleuritis, pericarditis, pneumonia, paraplegia and strabismus, parotitis, nephritis, osteomyelitis, phlegmon of the lower extremities, oophoritis and orchitis, septicemia, typhoid beginning with an angina, and tuberculosis.

It is only natural that we should look on such a list with some mental reservations, but no intelligent physician of to-day will deny that the infections and toxins of tonsillitis have an important causal relationship to many forms of rheumatism.

Those who have worked with the diseases of the urinary organs in women have for a number of years been familiar with the so-called rheumatic urethritis. In using this term I wish to exclude the old text-book application, for undoubtedly most cases of chronic granular urethritis are due to old gonorrheal infection, and our text-books have included these under the term "rheumatic." But we have seen many cases in which gonorrhea could be ruled out to a practical certainty and for which we have been at a loss for the etiologic factor. This is particularly true in the cases of respectable unmarried women who have a persistent urethritis and have intact hymen and very little probability of ever having contracted gonorrhea. Some of these chronic urethritides are associated with vulvitis and I have been inclined to class some of them as traumatic infections due to onanism. We see rare cases of cystitis and urethritis following immediately after marriage in which gonorrhea can be ruled out, and we find the infecting agent to be the colon bacillus or some other micro-organism. These are undoubtedly traumatic infections. Theoretically a few of our chronic urethritis cases might be classed as auto-infections, because of the very short urethra and the myriads of bacilli and cocci normally inhabiting the region of the external urethral orifice.

If we rule out these possible auto-infections, gonorrhea, and trauma and infection from childbirth, coitus and onanism, we still have left a not inconsiderable proportion of our chronic urethritis cases for which we have heretofore been at a loss to explain the origin, and we have generally classed them as rheumatic urethritis. As a matter of fact most of these patients have suffered from some form of rheumatism and the local urethral treatment is more effective if the patient is given simultaneous internal antirheumatic treatment.

My experience with these cases is that they generally respond to local treatment more quickly than the chronic gonorrheal cases (although there are numerous exceptions to this rule), and as a rule they relapse within a few weeks or possibly months after the patients think themselves well.

I am not certain that there is any speculum picture to differentiate the rheumatic from the gonorrheal cases, but I am under the impression that we will find, in many of the rheumatic cases, most inflammation about the inner third of the urethra, while we all know that in the gonorrheal cases the inflammation persists longest about the outer third of the urethra, where are located most of the urethral crypts and glands.

ILLUSTRATIVE CASES

CASE 1.—My attention was first called to the possible relationship between the tonsils and the urethra by a patient whom I had been treating for chronic urethritis from December, 1908, to May, 1909. During this five months I had been treating the urethra once or twice a week by dilating with Hegar dilators and mopping the urethra with either 3 or 10 per cent. silver solution. During this time I had on one occasion prescribed a gargle for a sore throat. May 20 the patient asked me why her throat should always be irritated immediately after I made the silver application. This sore throat lasted as long as the urethral reaction was active, about twenty-four hours if I used the 3 per cent. silver, and as long as three days after the 10 per cent. silver. She said that she had noticed this phenomenon for some time and she had also noticed that her throat and urethral irritation always seemed to be aggravated in damp weather. I examined her throat and found that the tonsils were large and presented numerous crypts over the surface. I referred her to Dr. T. Chew Worthington who reported as follows: "The tonsils, while very deep and buried between the pillars, are much larger than they appear, and show evidence of frequent inflammation, and I believe that they are largely responsible for the patient's rheumatic trouble; but I do not know to what extent they may cause the urethritis." They were so riddled by necrotic foci that it was impossible to remove them except by morcellement. I saw the patient three times within the next two

* Read before the meeting of the Southern Surgical and Gynecological Association at Nashville, Tenn., Dec. 13, 1910.

1. Rosenheim: The Tonsillar Ring and the Paranasal Sinuses as Portals of Entry of Infectious Diseases, Bull. Johns Hopkins Hosp., November, 1908, xix, 338.

months and her symptoms had rapidly disappeared, although she was having some discomfort at times and the urethra showed some granulations over its inner half.

One can scarcely appreciate the marvelous change in this patient without knowing the details of her history and having treated her as I did for five months without appreciable permanent relief. She was a single woman, a seamstress, 42 years of age and had entered the menopause two years previously. She remembers one attack of inflammatory rheumatism when 25. She had had bladder irritation at times for eight years, this occurring only once or twice a year up to within two years ago, since which time she had had no relief. She complained of great frequency and of sharp stinging pain in the neck of the bladder while voiding. She was often afraid to leave the house because of her inability to control the bladder. In addition to the local symptoms she had pain in the right groin and great discomfort and soreness across the entire lower abdomen. She often had a sinking feeling, nausea, and a desire to void if she made a misstep while walking, or if she rocked in a chair, or drove over a rough road, or rode in the street car. Bimanual examination of the pelvis and lower abdomen elicited considerable muscle spasm, and because of this and her very indefinite symptoms I was led on several occasions to think of the possibility of chronic appendicitis. Pelvic examination and high rectal examination were negative. Palpation over the urethra caused reflex pain in the bladder region. The most striking feature of her examination was the fact that on distention of the urethra when injecting the 10 per cent. cocain solution preparatory to the urethral treatment the patient always complained that I caused her typical abdominal pains reaching as high as the umbilicus, and a feeling of nausea. It was this one persistent and consistent complaint of the patient that soon led me to cease thinking of a chronic appendicitis. It well illustrates also a dictum that I have given my students for a number of years, viz., when dealing with any obscure abdominal complaint located below the level of the umbilicus, never to overlook an examination of the urethra.

Within two months after the tonsils were removed, the preliminary distention of the urethra with cocain did not cause abdominal discomfort. The spontaneous abdominal discomfort had disappeared and the only symptom was a slight local irritation in the urethra.

At my request the patient came to my office on Dec. 1, 1910. She had been practically well for the intervening fourteen months. On some days she is conscious of a slight uneasiness in the bladder, but she often holds the urine all day. She has never had the soreness across the hypogastrium nor the nausea and sinking attacks. Riding over a rough road or jarring from any cause does not affect her. While formerly she never dared sit in a draft, she now does not consider such matters. The anxious, harassed expression of the face has disappeared and she claims to be in perfect health. Cystoscopic examination shows the urethral mucous membrane to be normal.

CASE 2.—In February, 1909, Dr. A. I. Miller, of Brattleboro, Vt., sent me a Miss B., aged 35, who had been complaining of bladder trouble since an operation for uterine displacement in October, 1907. The patient was in an extremely nervous condition and examination showed the urethra to be contracted throughout its length and to have a very granular, red mucosa. She remained at the Johns Hopkins Hospital for six weeks, being treated for her nervousness and having the urethra treated about once a week. Within six weeks the urethra easily took a number 12 Hegar (12 mm.) dilator and its mucosa was normal-looking. Fearing a return of her trouble, the patient did not go home on dismissal from the hospital and her fears were well founded, for her urethral irritation returned in a few days. In May the patient was complaining of joint trouble for the first time and was placed on aspirin treatment which helped her joints and seemed to help the urethra. After my experience with the first case and in view of her rheumatic manifestations I examined the patient's throat and found that she had large tonsils. She refused to have these operated on until Dec. 23, 1909, when Dr. H. C. Davis removed her tonsils, finding them in much the same condition as those found in the first patient. The patient's urethra answered more readily to the treatment after the removal of the tonsils, but for about seven months there was a small area at the base of the right tonsil which became much irritated at times, and the patient was then very likely to complain of rheumatism in her knees and of the urethral irritation. After the spot in the right fauces was repeatedly touched with 10 per cent. silver solution and the urethra dilated and touched with solution of the same strength, the patient has finally made an apparent complete recovery. For four months past the irritation has been almost completely absent and the urethral mucosa, examined on a number of occasions, has remained normal.

CASE 3.—Miss W., aged 48, admitted to the Johns Hopkins Hospital Oct. 10, 1901, complained of bladder trouble, indigestion, and nervousness. The menopause occurred four months previously. As a child the patient had measles and diphtheria. She had pneumonia when 18 and suffered with neuralgia and headaches. Six years previously she had an infection of the middle ear from her throat and the ear drum ruptured and drained freely. Hearing had been impaired since and she had occasional attacks of earache. She had hay fever every summer for years.

Four years ago, or in July, 1897, she first had bladder trouble as a frequency of voiding with intense pain, and the urine contained blood and mucus for several days. The pain and frequency lasted three months.

In the following four years she had had about two attacks a year usually lasting about two weeks. In January, 1901, she was confined to her room for one week with an attack and since then had constantly felt that an attack was impending. Her present attack came on five weeks prior to admission. It began with intense pain which prevented sleep. The pain was more severe on voiding. She passed some blood.

Examination revealed a normal bladder and a severe urethritis located in the inner third of the urethra.

A few treatments resulted in an apparently perfect cure.

She was again admitted to the Johns Hopkins Hospital March 14, 1910. After leaving the hospital in 1901 the patient was free from urinary symptoms for two years. Her symptoms of frequency and pain then began and for two years she had occasional loss of control of the urine. In 1905 she had a severe attack of typhoid fever with a long, slow convalescence, and now for five years she has had almost constant bladder trouble. For the past year her symptoms have been worse and she generally wears a napkin because of complete incontinence.

I examined the patient March 16, 1910, and found a specimen of urine drawn by the catheter clear. After applying 10 per cent. cocain solution and placing the patient in the knee-breast posture the urethra was first sounded with a 5 mm. Hegar dilator. This broke down what felt like a soft scar tissue obstruction at or near the internal urethral orifice. No further obstruction was felt in dilating up to a 10 mm. Hegar dilator.

The bladder was normal, but the urine settled in the vertex was bloody. This blood was found to be flowing from the anterior aspect of the internal sphincter region, probably from the obstruction felt to give way under the No. 5 Hegar.

The patient improved rapidly under the treatment by dilatation and applications of 3 per cent. silver solution.

After three weeks she complained of an attack of sore throat and examination showed enlarged and inflamed tonsils. These were partially removed with the tonsillotome April 22, and the patient was soon discharged. In answer to a letter in November she wrote in part as follows: "I am stronger than when I went to the hospital last March, but the bladder trouble is no better; in fact, it is so bad I very seldom leave home. I cannot see that the removal of the tonsils has helped me at all. I have just as much rheumatism and sneeze very much each day; in fact, more than I ever did."

If my theory is tenable this is just the result one would expect from partial removal of the tonsils by the tonsillotome. The patient's reference to the persistent sneezing and her

"nasal" method of talking make me think that she has paranasal sinus infection as well and she has been advised to return for more complete attention to the tonsils and air passages.

CASE 4.—Miss H., aged 26, consulted me July 14, 1910. For about three years the patient had had bladder symptoms more or less constant, but exaggerated with overexertion, and particularly on damp days. When at its worst there was almost a constant desire to void. She did not consider the distress a pain nor a severe burning, but said it was more of a nagging. For the previous five or six months there had been a peculiar tired feeling in the right pelvis and the patient worried for fear that some serious condition was developing.

The patient had quinsy twice as a child and she was bothered a great deal with her throat. She had a severe attack of quinsy last winter and after four days the abscess ruptured. She has not had rheumatism. Examination of the heart revealed a soft systolic murmur over the mitral region and an accentuated second sound at the base. Both tonsils were enlarged. The bladder urine was normal. The urethra was very tender on introduction of the catheter and on examination it was found to be granular and reddened throughout its length.

The urethra was dilated and swabbed with 3 per cent. silver solution July 14 and July 21. The patient was sent to Dr. Sanger, who removed the tonsils early in August. He reported the right tonsil as badly diseased. Two weeks after the tonsillectomy I found the urethral mucosa less tender and less inflamed. I gave the third treatment and the patient left the city to take a position as school teacher. I have heard indirectly that she is greatly improved in health, and as the urethra seemed to be the only point of complaint I conclude that this must be improved.

SUMMARY OF CASES

To review the evidence briefly in these four cases:

In Case 1, the patient, as long as she could remember, had a tendency to "catch cold" easily and had to avoid drafts. She had an attack of acute inflammatory rheumatism involving the joints of the left side seventeen years previously. For eight years she had had attacks of bladder trouble and abdominal discomfort which for the previous two years had kept her in almost constant agony and had often kept her housed because of the inability to control the urine. Five months of regular treatment about once a week had made but little impression on her urethral and reflex abdominal symptoms. After the tonsils were removed three treatments in the next two months resulted in a cessation of practically all her symptoms and she often retained the urine an entire day. This cure has lasted for fourteen months.

In Case 2 the patient had had constant bladder symptoms for over two years, the disturbed nights and diurnal irritation making of her almost a nervous wreck. Bladder and urethral treatments had been without permanent effect. Treatment of the urethra for six weeks while she was in bed resulted in an apparent cure, but one week after leaving the hospital the symptoms returned and the urethra looked as inflamed as ever. Months of treatment, with the patient boarding in the city and having almost complete rest, gave occasional periods of one to two weeks of improvement in the symptoms. After the tonsils were removed there was one inflamed area in the base of the right tonsil region which for seven months gave occasional exacerbations of sore throat accompanied by pain and tenderness in the knee-joints and an exaggeration of the urethral symptoms. For the four months following treatment the patient's throat gave but few symptoms and the urethra was well as regards symptoms and appearance. After the tonsil operation the patient took a position as matron of a woman's dispensary, her duties ranging from bookkeeper to scrub woman, so that her improved health cannot be ascribed in any way to opportunities for rest.

In Case 3, when first admitted to the hospital in 1901 the patient had been suffering for four years with recurring attacks of bladder trouble. A few treatments of the urethra gave complete relief. For two years she had approximate health and then for seven years her bladder trouble had been growing worse until she had to depend permanently on a pad for catching the urine. Again a few urethral treatments seemed to relieve her condition perfectly. Her tonsils were then shaved off with a tonsillotome and within a few weeks her symptoms became as bad as ever.

In Case 4 the patient had complained of bladder trouble for three years and gave a clear history of tonsillar trouble since childhood, with three attacks of quinsy. In her case the tonsils were removed after two urethral treatments, so that we have not the striking demonstration, as in the other three cases, of the futility of urethral treatments while the tonsils remain.

I realize that these four cases of chronic urethritis are too few in number and of too recent occurrence to serve as a basis for reliable conclusions. The evidence here set forth, however, is sufficient to warrant a more careful study of our chronic urethritis cases, for if we can relieve permanently only a small proportion of these chronic sufferers by a comparatively simple operation, we will have made an important advance in therapeutics.

Since I have been on the lookout for these cases I have added seven others to my list which probably belong to this class. Some of the patients have been under my care intermittently for several years and it is only because they have chanced to return during the past few months that they are mentioned in this report. Two are worthy of an extended report.

CASE 5.—Mrs. M., of St. Paul, telephoned me from New York in September of this year asking for an office appointment, stating that she had been my patient three years ago. On looking up her history I made a mental prediction that diseased tonsils would be found on another examination.

The history taken on her first visit in May, 1907, was as follows: About June, 1906, the patient developed rheumatism in the right knee, for which she went to Mount Clemens, and while under treatment there the trouble involved the joints of the right hand and the third finger of the left hand. About this same time she began to have "bladder trouble." This developed gradually as a scalding or burning, which was more likely to come on ten or fifteen minutes after voiding, and which she thought was in the urethra rather than in the bladder. She had no trouble at night; the aggravation had been more persistent for the last four months, occurring every day or every other day and preventing her from walking or taking much exercise. On further inquiry regarding her rheumatism she said that in 1891 she had rheumatism in the right shoulder and arm and in 1903 she was at the French Lick Springs for rheumatism in the right knee. When she first consulted me she had just spent six weeks at the Arkansas Hot Springs for rheumatism in her hands.

The urine on examination at this first visit was normal; the bladder was somewhat reddened about the trigonum, and the urethra was narrowed and showed a granular red mucosa throughout its length. I made a diagnosis of chronic granular urethritis of rheumatic origin. After two treatments consisting in the dilatation of the urethra and the application of 3 per cent. silver solution on the first visit and of the 6 per cent. silver solution on the second visit, the patient was obliged to return home. I sent instructions to her physician in St. Paul concerning further treatment.

On her return in September, 1910, the patient stated that she had been fairly well and had taken no further treatment. She had recently had considerable anxiety, was in bad physical

condition and her urethral trouble had returned. I examined the urethra through the Kelly cystoscope without first disturbing it with the Hegar dilators, and found that the granular redness was confined to the urethral sphincter and to the mucosa of the inner third of the urethra. In view of my recent experience I quizzed her more closely and found that she had her first bladder symptoms when 16 years of age; that she often had a sore throat as a child, but did not remember having tonsillitis. This past winter she had considerable "rheumatic sore throat." I examined her throat and found much congestion about the fauces; the tonsils were considerably enlarged and had deep crypts over the surface, these being free from white deposits at the time of my examination.

I sent her to a laryngologist who considered that her tonsils were undoubtedly a causative factor in the rheumatism.

CASE 6.—Mrs. R., aged 32, mother of three children, the youngest 4 years old, was referred by Dr. Gaver of Mount Airy and admitted to the Church Home in June, 1909. She had had bladder trouble for the previous three years with only brief intervals of freedom from pain. At times she had been in bed a week because of agonizing pain. There had also been pain in the right flank region and the patient was then wearing a plaster because of the pain and weakness in this region. I first thought, on taking her history in my office, that she probably had tuberculosis of the right kidney. The urine catheterized from the bladder contained many epithelial cells, leukocytes and red blood-corpuscles. Examination for tubercle bacilli was negative, but the urine contained many cocci, some arranged in pairs, suggestive of gonococci; none could be found, however, in the pus-cells. After a day of rest in the hospital cystoscopy was done and the urethra was dilated with difficulty, there being a stricture about half way in and another at the internal orifice. The trigonum was of a deep red hue and apparently swollen; the bladder mucosa was everywhere traversed by congested vessels. Both ureteral orifices were red but neither showed particular evidence of disease. The right ureter was catheterized with a No. 5 wax-tipped bougie, which returned without scratch-marks. The urine from the right kidney was normal. After a few days' observation I made a diagnosis of appendicitis and a large congested appendix was removed. During four weeks in the hospital the patient received treatment for her cystitis and the urine became normal.

I have given this patient many urethral treatments in the eighteen months previous to this report. The stricture at the inner orifice still persists and she still had occasional attacks of urethral symptoms accompanied by granular reddening of the mucosa.

The patient had her tonsils removed about 1907 but she did not remember the chronologic sequence of her bladder and tonsillar trouble. She still has considerable throat trouble and examination shows a mass of tonsillar tissue on the right side.

The possible relationship between tonsillitis and ureteritis has been brought to my attention only recently, the two patients possibly belonging to this class still being under observation and only one of them having had her tonsils removed.

In September, 1910, Dr. Herman F. Derge of Eau Claire, Wis., sent me a patient 26 years old, who had the following history:

CASE 7.—Six or seven years previously the patient had an attack of pneumonia, which was followed by tonsillitis and rheumatism. At that time her tonsils were treated with the cautery. Soon after this she began to have attacks of pain in the left flank region. At first these attacks occurred every two or three months and the patient would lie down and flex the left leg for an hour or two until the attack disappeared. Her attacks gradually became worse, but she never had any nausea or vomiting with the attacks until the spring of 1910.

In February, 1910, she had an attack of tonsillitis and rheumatism, followed by similar attacks in March and April. After this the attacks of pain in her side became much more severe and were accompanied by nausea and vomiting. Dr. Derge wrote me in August that he had had the patient under observation in the hospital for four weeks, and said: "During this time her temperature has always been normal and the pulse has ranged between 72 and 96. For the first three weeks the urine contained constantly 1 gm. of albumin, pus cells, some red blood-corpuscles and a small rather thick bacillus. On two separate occasions I have examined the urine for tubercle bacilli but have found none. I have also cystoscoped her twice and on each occasion failed to get a catheter into the left ureter. The bladder itself looks perfectly normal and she has had no vesical symptoms. For the past week the urine has looked perfectly normal, there being neither albumin nor pus cells present and she excretes on an average 2 liters a day. Yesterday she had another attack of pain in the left side, was nauseated and vomited."

On her arrival in Baltimore the patient looked exceedingly ill. She had been having an attack the previous night, with much nausea and vomiting. I found a mass in the left kidney region projecting about 4 cm. below the costal margin. This was very tender and on palpation of the pelvic brim in the region of the ureter considerable pain was caused. Urine catheterized from the bladder was acid, showed a specific gravity of 1028 and contained a slight amount, about 0.1 per cent. of albumin. The microscope showed many epithelial cells and an occasional red blood-corpuscle. Three good radiographs of the kidney, ureter, and vesical regions, respectively, were negative.

After a few days' rest in bed, with frequent injections of morphin to control her pain, I made an unsuccessful attempt to catheterize her left ureter. Nine days after her arrival Dr. Sanger removed her tonsils and about ten days later I again failed to catheterize the ureter.

For two weeks after the removal of the tonsils the patient had about the same symptoms in the kidney region, the attacks being more severe if anything. After this the attacks seemed to be less frequent and decidedly less severe, the patient was allowed to take walks and drives and go to the theater, thus leading about a normal life, and her attacks of pain which occurred every two or three days were aborted with one injection of ⅛ grain of morphin, whereas her former attacks had required from one to three ¼-grain injections.

Of course one cannot expect a disappearance of the scar tissue involving the ureter after the removal of the tonsils and I should explain the improvement in her condition as due to the removal of the toxins which had caused the repeated inflammatory attacks in the ureteral mucosa.

After waiting two months and being unable to dilate the stricture from the bladder end I operated to dilate the stricture from above. Through a left rectus incision the peritoneum was pushed medianward until the ovarian vessels and ureter were found running parallel in the peritoneum. This exposed the iliac vessels on the pelvic brim and the round ligament covered with peritoneum near its entry to the internal ring. It also gave excellent exposure of the bladder. By blunt finger dissection the ureter was easily followed down to the point where it ran under the uterine vessels. A point was selected on the ureter low enough down so that in case the stricture could not be dilated the ureter could be cut across and implanted into the bladder. At this point, about 5 cm. above the crossing of the uterine vessels, the ureter was opened lengthwise and I had no trouble in passing gum-elastic filiforms, and finally a large follower 7 mm. in diameter into the bladder. A renal catheter was then passed into the bladder and its distal end was passed almost up to the kidney. The ureter was closed with fine catgut and a small finger drain was carried down into the ureter wound. After the closure of the abdominal wound the table was elevated and through a Kelly cystoscope the pointed end of the renal catheter which had been passed into the bladder was located, grasped with the alligator forceps and drawn out through the urethra. The pointed end was cut off and the catheter was fastened to the thigh by adhesive strap and through this catheter the kidney was irrigated three times a day for five days with 1-10,000 silver nitrate solution. The bladder was given a similar irrigation once a day.

Three weeks after the operation the patient was walking about the hospital. She had no sign or symptom of returning trouble in the left kidney. A suggestive feature in this case, as in case of urethritis, was that she had a sore throat and hoarseness after each attempt to catheterize the ureter, such treatment being followed by my routine swabbing of the urethra with 3 per cent. silver solution.

CASE 8.—The second case of stricture of the ureter was that of a colored woman, aged 48, who had been under my care in the cystoscopic dispensary for several weeks. She began to have bladder trouble in May, 1910. She complained of a frequency and burning and thought she had caught cold in the bladder. For two years she had had mild attacks of pain in the right kidney region. These occurred from one to three weeks apart and she had no discomfort in the side between the attacks. Since the bladder trouble began in May she thought that the attacks of pain in the side had been more frequent and more severe.

About the same time that the pain began in the side she had a bad attack of inflammatory rheumatism in the left knee. This lasted all winter. Off and on for three or four winters she had rheumatism under the left shoulder blade and in the cervical vertebræ, this at times keeping her from work. She noticed for two years previously that she caught cold very easily and had a sore throat even in the summer time.

Examination of the urine catheterized from the bladder showed a moderate number of pus-cells. The right ureteral orifice was slightly inflamed, presenting such a picture as one sometimes observes when a stone lies low in the ureter. On four different weekly visits I attempted to pass a wax-tipped catheter to the right kidney, being successful only on the second visit. The wax tip returned without scratch marks. On injection of the kidney pelvis her pain-phenomena in the right kidney region were imitated. The pelvis was but slightly dilated, holding but 12 c.c. of fluid. The point of obstruction to the renal catheter was located about 3 cm. from the bladder orifice of the ureter. *X*-ray examination of this region was negative.

The patient's tonsils were both considerably enlarged and she has promised to have them removed.

On meeting a stricture in the ureter and looking for the cause one thinks, in the order of their frequency, of stone, tuberculosis, gonorrheal infection, and then of pelvic inflammatory disease, appendicitis, and pelvic or abdominal tumors. We sometimes meet an obstruction to the catheter which is not met on another occasion and we conclude that the obstruction was probably peristaltic in character. Some obstructions are probably caused by unusual kinks in the ureter following inflammatory displacements. Most of the ureteral stricture or obstruction causes, such a stone, tuberculosis, and periureteral tumors, are easily differentiated. There are not a few strictures about the lower end of the ureter for which we have been unable to find an etiologic factor. I have been inclined to think that some of these may represent a healed focus of tuberculosis, some an infiltration of scar tissue about a stone which has later been dislodged and passed, and a more probable supposition to my mind has been that a gonorrheal infection of the bladder may have resulted in infectious material or toxins being carried in the periureteral lymphatics, causing a focus of inflammation in the ureter near the bladder. I have not been able to prove any of these suppositions in the case of ureteral strictures, but I am inclined to believe that this newer theory of tonsillar infections or toxins giving rise to ureteral stricture may be found to apply to some cases for the causation of which we would otherwise be in the dark. The futility of treatment by dilatation in such cases without removal of the tonsils is apparent.

I am not familiar with male genito-urinary work, but am told that many cases of chronic urethritis, trigonitis, inflammation of the verumontanum and other portions of the posterior tract cannot be traced to a gonorrheal infection. Dr. Geraghty of the Johns Hopkins Hospital tells me that he has seen cases of acute prostatitis with abscess formation which followed during or immediately after a tonsillitis. With such facts in hand it seems not improbable that some cases of chronic urethritis associated with chronic prostatitis may have their origin from tonsillar infections or toxins.

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TWO CASES OF HUNTINGTON'S CHOREA WITH SPINAL FLUID FINDINGS

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Chronic progressive chorea associated with mental enfeeblement occurring during adult life, first fully described by Huntington in 1872, seems far more prevalent in the Middle West than in the East. There were but two cases of this type among the 2,436 admissions to Manhattan State Hospital[1] during 1909 and 1910. If this can be taken as an indication of the prevalency of Huntington's chorea in the East, it will be seen that it is quite low when compared to the number admitted at Kankakee, Illinois, and the Wisconsin State Hospital during the same period. The combined admission rate of these two last-named hospitals approximately equals that of the Manhattan State Hospital. At Kankakee there were two patients admitted[2] and five at the Wisconsin State Hospital. It will also be recalled that Hamilton's[3] twenty-seven cases were all taken from the Middle West.

The following two cases seem especially worthy of report in that the hereditary transmission, mental involvement and well marked chorea offer a picture classical of this disorder.

CASE 1.—J. R., male, farmer, widower, was admitted to the Wisconsin State Hospital Oct. 15, 1910.

Family History.—The family history showed the maternal grandmother to have been choreic, although nothing definite as to mental symptoms could be obtained. Her death occurred at 56 and the cause given was "nervous trouble." The other grandparents died of old age. The patient's mother was admitted to this hospital in 1891, suffering from chorea and was described as being "demented." She was transferred to a county hospital where she died. The father died at 67 of "paralysis." There were eight children, of whom the patient was the oldest of five brothers. Two sisters died in infancy of unknown cause. The sister living is said to have chorea, which developed after childbirth, and is a patient at a state hospital in Washington. The youngest brother is said to be "nervous."

Personal History and Present Illness.—The patient was born June 12, 1869. Nothing of note occurred in his early life. He attended a country school and was thought to be unusually bright. After leaving school, he worked on a farm; married in 1900; wife died of typhoid fever in 1907; one child, a girl, at present 9 years old, is normal.

In 1904, twitchings were first noticed, although neither the brother nor the patient know what part first became involved. They described the twitchings as being general. These twitchings gradually became more pronounced, yet the patient continued at his work as a farmer, and was said to have been industrious and thoroughly capable. No mental symptoms

1. Communication from Dr. George H. Kirby, Director of Clinical Psychiatry, Manhattan State Hospital, New York.
2. Communication from Dr. Frank P. Norbury, Superintendent, Kankakee State Hospital, Illinois.
3. Hamilton, A. S.: Am. Jour. Insanity, liv, 3

were noticed until about one week previous to admission, when on returning from the field where he had been working, the patient complained bitterly that some one had strewn blood all about the field. He was very excitable and soon complained that he was covered with blood; that some one was dragging bloody ropes about the room. He became very much frightened, tried to lock himself in a room and began crying out at the top of his voice. He was sent to a jail where he remained two days, and then transferred to the state hospital at Mendota.

On admission the patient was in a very apprehensive state, shouting almost continually, "Take them away. They are trying to kill me," etc. He pressed himself against the wall of the room, and when approached would strike out blindly. This apprehensive excitement, with very evident hallucinosis, subsided after forty-eight hours and the patient gradually became accessible. The auditory hallucinations were now readily spoken of by the patient, and continued another four days, gradually becoming less and less marked. During this time he complained that the "voices" threatened to kill him and several times he asked the examiner when he was to be executed. Within ten days after admission, the hallucinosis had entirely disappeared and the patient became readily accessible for both mental and physical examination.

Mental Symptom-Complex.—A vivid auditory and visual hallucinosis, accompanied by marked apprehension lasted for five days, and auditory hallucinations persisted for another four days (threatening voices). On return to a quiet state there was a definite amnesia for the delirious episode, with a mild intellectual deterioration, poor memory for dates and poor retention, but good insight for the hallucinosis.

Physical Symptoms.—The most striking features were the gait, the choreic movements and the very peculiar facial expression. The patient was of swarthy type, height 5 feet 6 inches, weight 150 pounds, hair slightly tinged with gray, no physical stigmata of degeneration. The chorea was general; the movements were rather slow and deliberate, though quite extensive, as if the muscles involved had acted to their full extent. All the muscles of expression showed this condition—the occipito-frontalis especially; the lips were alternately drawn back and then puckered, drawn to one side and then the other. There was a constant clicking of the tongue; the mouth opened and closed; the eyes could not be held steadily in one position, but moved slowly from one side to the other. The subptosis lent a very peculiar expression to them, as if the individual were intoxicated. There was present a persistent, irregular, spasmodic cough, with almost constant moaning and groaning. The arms and shoulders swayed about, the hands opening, closing and twisting; the trunk swayed forward, backward and to the side. In station, one leg would suddenly shuffle forward, to the side or backward; the gait was a peculiar skipping, swaying, dance-like activity. The toes were seen to flex, extend and spread themselves. The patient could hold a pencil and would attempt to write, although the specimen was hardly legible. While making this effort, the movements of the other parts seemed exaggerated. The muscles were well developed, powerful and firm, with a very noticeable increase of tone. The superficial reflexes were all active; the deep, very decidedly exaggerated. The pupils were equal and active to both light and accommodation. The speech was at all times very harsh, thick and interrupted by spasmodic cough; at times completely aphonic. No sensory disturbances could be made out. The pulse was irregular; at times seemed to pause, followed by a number of slighter pulsations in rapid order, until again assuming its regular rhythm. This would occur four or five times in a minute. The patient sometimes experienced difficulty in starting the act of urination. Deglutition was interfered with. During sleep the movements ceased, although they recurred immediately on awakening.

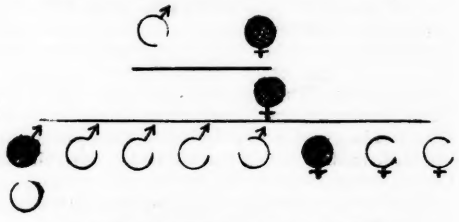
CASE 2.—W. P., male, single, farmer, admitted to the Wisconsin State Hospital Oct. 28, 1910.

Family History.—The paternal grandfather suffered from chorea, and was said to have been mentally afflicted, though never committed. Of four boys and two girls in the succeeding generation, the oldest (father of the patient) developed chorea at the age of 55, became very forgetful and simple, and died of a strangulated hernia at 60. The youngest of these brothers developed chorea at about 50, became insane and died in an asylum. The next succeeding generation, that of the patient, comprised four boys, of whom the patient was the oldest, and one girl. Of these the patient was the only one thus far who showed symptoms of chorea, although the youngest brother, aged 32, was said to be decidedly nervous.

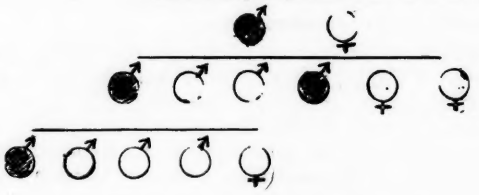
Personal History and Present Illness.—The patient was born in 1855. Nothing abnormal occurred during infancy or childhood and he was said to have been of average intelligence, getting along very well at school. He began farming at about 20 and continued at this until the onset of his mental symptoms. At the age of 7 he developed an abscess of the right leg, which discharged slightly though persistently for fifteen years. He was always very temperate in his habits and never had any venereal infection.

At the age of 38, mental failure was first noticed. This was in the nature of sudden outbursts of anger and a change in the patient's disposition. He was described as having become "preoccupied." This became more noticeable, and his memory was said to have become poor during the succeeding five or six years. The patient also began expressing peculiar ideas concerning his financial status; expressed himself as wishing to get rich quickly, laying great stress on a rather simple and not very serviceable combination garden tool, which he

Hereditary Transmission in Case 1.



Hereditary Transmission in Case 2.



invented. He maintained that, if this could be properly exploited, it would result in great wealth, and he became very angry with his relatives when they interfered with his attempt to sell his property in order to capitalize this venture. He also had very unpractical ideas concerning the development and sale of real estate; would collect and answer every advertisement he could get hold of; finally became so irritable that he could no longer be taken care of at home. About five years previous to admission, at the age of 50, the motor symptoms first became noticeable. These were described as a "jerkiness," at first involving the hands and arms, gradually becoming more marked and general. During the last two years before admission the mental dulness became very pronounced.

Mental Symptom-Complex.—A general mental deterioration; gross memory defects; very meager knowledge of the events of the last five or ten years; retention *nil;* mildly euphoric; a few absurdly expansive ideas concerning personal capabilities; no insight.

Physical Symptoms.—The face presented a very peculiar, sleepy appearance without sign of emotion. The chorea was very noticeable, involving the muscles of the neck, shoulders, arms and hands mostly. The head was extended backward, or bowed forward, or either of these combined with rotation or lateral movement. The mouth was drawn to one side or the other, the shoulders hunched frequently and equally, together or alone. The arms moved forward or backward, forearms flexed and the fingers moved about. All of these movements

were quite slow and of irregular frequency, although rarely was there any part unaffected. The legs showed relatively little, save when walking, when the gait was a peculiar, straddling, shuffling, swaying locomotion. The muscles were well developed, firm and of a good tone. The eyes were unaffected; pupils equal and active to both light and accommodation. A slight peripheral arteriosclerosis was present; pulse regular; soft systolic murmur at the apex. Superficial reflexes were all active and the deep were markedly increased. Speech was very thick and difficult to understand. Writing was impossible. Movements ceased during sleep.

Lumbar Puncture.—Spinal fluid examinations were made in both cases, and are interesting in that both were negative, cytologically and chemically. The method of examination employed was that used by Dr. Bybee and myself in a series of spinal fluid examinations recently reported.[4]

RESULTS OF THE EXAMINATION OF CEREBROSPINAL FLUID

	Case 1	Case 2
Cells per cu. mm.	4	1
Small leukocytes	78 per cent.	76 per cent.
Plasma cells	16 per cent.	14 per cent.
Large lymphocytes	3 per cent.	2 per cent.
Polymorphonuclear leukocytes	1 per cent.	8 per cent.
Endothelial cells	0 per cent.	0 per cent.
Degenerate cells	2 per cent.	0 per cent.
Nonne and Appelt's, first phase	Faint.	Faint.
Nonne and Appelt's, second phase	Negative.	Negative.
Noguchi's butyric acid test	Negative.	Negative.
Reaction to Fehling's solution	Reduction.	Reduction.

These negative findings are especially interesting in view of the difference of opinion held as to the pathologic condition present in these cases. Certain observers have viewed the condition as an inflammatory lesion of the cortex and meninges, some going so far as to associate it with general paralysis. On the other hand, more recent writers have contended that the condition is one of neuroglia proliferation. In the case with autopsy findings reported by Rusk[5] the author favors the latter contention. It would seem to me that the negative pleocytosis found in the above cases would also tend to rule out the presence of an inflammatory condition of the cortex or meninges. Dunlap's[6] report and that of Raecke[7] agree as to the absences of an inflammatory condition.

A glance at the genealogic charts will show that the hereditary transmission in Case 1 occurred through the female members of the family until the patient's generation, while in Case 2 it was through the male members and the males were alone affected.

It will be observed that these two cases vary considerably in the mental symptoms which were present. Case 1 showed, I believe, the "confusional hallucinatory delirium" spoken of by Brower and Bannister,[8] also agreeing in many respects with the delirium, occurring in these cases, described by Clouston[9] many years ago. Both cases show a marked memory defect, although in Case 2 the mental enfeeblement is more general and more marked. This latter case likewise shows the expansive delusional formation spoken of by Osler[10] and others.

Voluntary effort had no effect on the movements in Case 2, although here so much mental dilapidation is present that very likely this effort was not made, or at least not sustained. In Case 1, the movements were momentarily controlled in that part in which volition was exerted, although at the expense of the other parts. This was observed by Hamilton[3] to occur frequently, and was evident in Case 1, when he attempted to write. The patient exerted himself to the extent that a noticeable perspiration occurred on his forehead and called forth the remark from him: "Gosh, Doc, this makes me sweat."

The hypertonicity of the muscles noticed in Hamilton's[3] cases was present to a considerable degree in Case 1 and appreciably so in the upper extremities of Case 2.

No precipitating cause was obtainable. Alcohol and syphilis were denied in both cases. One rather interesting fact is that the grandparents in both cases were said to have been natives of New York State.

In order of occurrence of mental and motor symptoms, Patient 1 showed a chorea for approximately five years before noticeable mental symptoms occurred, while, on the other hand, Patient 2 showed mental symptoms twelve years before the motor became manifest. In both cases the informants were able to give reliable information.

In conclusion I wish to express my indebtedness to Dr. Charles Gorst, superintendent of the Wisconsin State Hospital, for permitting the report of these two cases.

4. Bybee and Lorenz: Arch. Int. Med., January, 1911.
5. Rusk, G. Y.: Am. Jour. Insanity, lvi, No. 1.
6. Dunlap, Charles B.: State Hosp. Bull., December, 1910, p. 417.
7. Raecke: Arch. f. Psych. u. Nervenh., 1909, xlvi, Part II.
8. Brower and Bannister: Practical Manual of Insanity, published 1902.
9. Clouston, T. S.: Clinical Lectures on Mental Diseases, published 1884.
10. Osler's Modern Medicine, published 1910.

TRAUMATIC PSYCHOSES AND POST-TRAUMATIC PSYCHOPATHIC STATES

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Various authors have attempted to establish a distinct clinical entity which could be termed traumatic psychosis, but a review of the cases reported in the literature shows that as yet we have not succeeded in attributing a distinct symptom-complex to this form of mental disorder. The only justification for grouping these cases under the heading of traumatic psychoses is their common etiologic factor, namely, trauma to the head. The degree and kind of injury are factors of some importance, and, as a general rule, only those injuries which produce an extensive, diffuse shaking up or shattering of the brain tissue, such as occurs in concussions or those which produce extensive pressure on the brain, will be followed by mental disturbances. A well-localized and circumscribed trauma to the brain is rarely followed by psychotic manifestations.

The general symptomatology of these cases varies greatly both in the time of occurrence and in the characteristic manifestations. The course of the disorder is also very variable, and it behooves one to be careful in rendering a prognosis in these cases. The cases which I am about to report in this paper have been selected because they illustrate the various forms and the variety of courses that this disease can take.

Kraepelin[1] in his work on psychiatry recognizes two forms of disturbance following trauma to the head, namely, a traumatic delirium and a traumatic feeblemindedness. His description of traumatic delirium does not vary very much from other delirious states, and simulates more the Korsakow's psychosis than any other mental disorder. This view is also shared by Calberlah,[2] who states that all these patients show the retrospective falsifications of memory and "confabulations"[3] so fre-

1. Kraepelin: Psychiatrie, eighth edition.
2. Calberlah: Arch. f. Psychiat., xxxviii.
3. This word is used by W. A. White in his Outlines of Psychiatry, by Paton in his Psychiatry, and by others, in the sense of the narration, without intent to deceive, of fictitious experiences, in the truth of which the narrator fully believes.

quently seen in Korsakow's psychosis. This view, however, is denied by other writers on the subject and, as will be seen later, some of my cases showed nothing of this symptomatology.

According to Kraepelin, the immediate results following concussion are a more or less complete clouding of consciousness. The patients are sleepy, drowsy, forgetful, dull and distracted. After these symptoms pass away, a marked impairment of memory might be noticed. In the more severe cases, complete unconsciousness may take place, which may persist only for a very short time, or for hours or even for days. On awakening, the patients remain thoughtless and clouded, show a marked disturbance of the perception sphere, especially in observing the finer points. Because of this, the patients are unable to obtain a clear conception of the impressions and events of their immediate surroundings; they may be aware of being in a hospital, but do not know its nature or have any idea of how they came there or why they should be there; they fail to recognize the people about them, and suffer from a confusion of identities. They do not notice the individual characteristics of the various people about them. Here and there a patient may develop disturbances of the sensorium, particularly visual hallucinations. Delusions of a depressive nature have also been seen in some cases. The patients have no insight into their condition and cannot understand why they are kept in the hospital, as there is nothing wrong with them. The perception disorders may simulate in many ways those of Korsakow's psychosis, in that the patients "confabulate" and suffer from marked retrospective falsifications of memory.

These patients have no recollection, or only a very faint one, of the accident, sometimes absolutely denying its occurrence, or they describe it differently at different times. The retrospective falsifications of memory which are observed mostly cover only a short period immediately preceding the accident. Here and there, however, these falsifications may cover a longer period, even years preceding the accident. These lapses of memory as a rule correct themselves almost completely, later on. This is perhaps due in part to the assistance of the information derived from friends. While the memory for remote events is, as a rule, retained, recent and immediate events are usually forgotten. The patient is unable to repeat short stories immediately after reading them, does not recall the names of those about him, does not know whether he ever saw them before, has no idea how he came to be in his present situation; in short, cannot recollect events of the most recent occurrence. At the same time, various falsifications of memory begin to make their appearance, either a mixture of truth and fiction, or wholly new fabrications.

These can be stirred up and influenced by persuasion. However, wholly fantastic and adventurous tales can be brought forth by these patients to which they hold very tenaciously. At times one can detect in these tales, which are usually described with the utmost minuteness, fragments of actual occurrences; others remind one of delirious or dream-state experiences.

Concerning time, these patients find themselves mostly in the dark. Above all, they are unable to give, themselves, clear account of the length of time which has elapsed since the occurrence of particular recent events; they do not know how long they have been in the hospital nor how long they have been under treatment, when they had visitors or when they saw the physician last. Heilbronner[4] showed that there exists a special tendency to set recent occurrences further back. Along with these, they are unable to orient themselves temporally, successively, for any length of time.

The mental activities of the patients are, as a rule, rendered considerably defective. They are distractible, can exercise their mental faculties only with the greatest difficulty, solve ordinary arithmetical problems very poorly, are unable to form a correct opinion of their condition or of occurrences in their environment. They apprehend badly, lose the trend of a conversation readily, and cannot apply themselves to any subject for any length of time. Later on, they develop a highly egotistic and very irritable disposition, are fault-finding, easily angered, and have outbursts of violent temper. Their affect tone fluctuates to a great extent; now they are elated, jolly and happy; now depressed and lacrimose. Disturbances of speech and writing also occur. They have difficulty in finding suitable words for expressing their ideas, have a tendency to form neologisms. Asymbolia and parapractic disturbances are also noticed.

The above kaleidoscopic description by Kraepelin is not, however, seen very frequently. Head injuries may be followed by no untoward, immediate symptoms. The patient may not even lose consciousness, but walk to his home and apparently not be the worse for the experience, until later—sometimes weeks and even months later—he begins to show a very noticeable change in his psychic total. His entire mental make-up changes, he becomes easily tired, is incapable of any prolonged mental effort, is forgetful, irritable and distractible. He complains of vertigo, pressure sensations in the head, migraine, noises in the ears; he experiences a sort of general benumbed feeling and shows a marked tendency to outbreaks of violent temper on the least provocation. He acquires great intolerance for alcoholic beverages; the slightest indulgence causes him to become intoxicated; he reacts in an extraordinarily severe manner to alcoholic stimuli. To this may be added epileptiform seizures, fainting attacks, and rarely, dream-states which may follow later.

Ziehen,[5] while in the main agreeing with Kraepelin, has gone a step further, in that he arbitrarily divides the traumatic psychoses into three forms: a primary and a secondary traumatic psychosis and a post-traumatic psychopathic constitution. The primary form follows immediately after the injury or after a short interim. This latent period may be as long as a week. If a prolonged coma follows the injury, the patient may emerge from same in a delirious state. The disease picture is characterized by numerous hallucinations, disorientation, incoherence, coordination disturbances, insane excitements and anxiety affects. At times it corresponds to the picture of a dream-state, then again, to that of an acute paranoia hallucinatoria. The gait simulates that of a drunken person and often feverish movements are present, even when no complication of meningitis or focal lesion exists. Intercurrent somnolence is not rare. Along with the marked association disturbances, severe memory defects are also found. These usually persist even after the acute symptoms pass over. The behavior of the patients is also changed and assumes a more or less characteristic coloring. They may develop catatonic states with severe impulsive outbreaks of violence and an aimless wandering back and forth. Recovery often follows and these acute disturbances may completely pass over. Other cases, however, may develop on top of these acute disturbances, a chronic

4. Heilbronner: München. med. Wchnschr., 1905, p. 50.
5. Ziehen: Psychiatrie, second edition.

psychic changed personality, thus merging into the secondary traumatic psychosis.

These belong in most instances to the defect psychoses and are characterized by gradual deterioration, the gradual development of a defective intelligence. We therefore speak also of a traumatic dementia, or feeblemindedness. Frequently this dementia may be mistaken for paresis, because of the physical disturbances which may accompany it. These patients may have various paralyses and incoordinations of movement and speech. Indeed, even on section, the brain may simulate closely that of paresis. In most instances this dementia remains stationary after reaching a certain point, and aside from a moderate weakness of judgment, a diminished capability for complex and especially for abstract conceptions, and a loss of the more intricate affect tones, the patients remain fairly normal.

In his last group Ziehen places cases of those who develop a so-called psychopathic constitution; that is, a well-defined distinct psychosis is wanting, but a careful comparison of the individual's mentality before and after the accident will reveal definite changes in his psyche. Those who knew the individual before the injury will invariably notice that he is more irritable, oppressed and very cyclothymic. He becomes easily tired mentally, evidences a loss of interest in things in general, lacks in quickness of judgment and foresight and shows a diminished capacity for mental productivity. He also acquires a marked loss of resistance to the effects of heat, emotions, tobacco and especially alcoholic beverages. Physically he is inclined to attacks of headache and dizziness, especially when bending over. There is also developed a suitable soil for the effects of other deleterious agents. An insignificant etiologic factor, which before the injury would have had no harmful effect on the patient, is of sufficient potentiality after the trauma to develop severe psychoses or psychoneuroses. The traumatic psychopathic constitutionality also carries in some instances the ear marks of neurasthenia and hysteria, very frequently also mixed hysteroneurasthenic states.

As will be seen from the preceding, the two authors differ chiefly in that Ziehen recognizes more forcibly the hallucinatory experiences, while Kraepelin lays much stress on the falsifications of memory. The general prognostic view held by these authors is quite an optimistic one, especially concerning the acute primary mental disturbances following head injury. As to the pathology of these cases, very little is known. In most instances there exist diffuse microscopic changes in the brain substance, characterized especially by minute hemorrhages and softenings. The location of the trauma plays no important part, and while as a general rule one would expect a quite severe impact in order to produce a general concussion and disturbance of the brain substance, mental disturbances have been known to follow quite trifling injuries to the head.

Audernach[6] reports a case of head injury in which the only external evidence of trauma was a small hematoma of the scalp over the occipital region. On examining the cerebrospinal fluid, blood was found, the patient later developing a psychosis. Here I think is an opportune moment to mention that in lumbar puncture we have one of the most certain guides in determining the extent of damage which the nervous system has sustained from a particular trauma.

The above authors have been quoted rather fully because their writings embrace the representative views of the German psychiatrists on the subject. I may add here that Kreuser,[7] after an exhaustive study of the subject, comes to the conclusion that it is very difficult to attribute to trauma the endogenous psychoses such as paranoia, mania, melancholia and hebephrenia.

CASE REPORTS

CASE 1.—A. B., white, male, aged 33, was admitted Nov. 3, 1904. Family history was negative; birth and childhood normal; school and occupational careers uneventful. He never suffered from any illness; uses alcoholic drinks moderately. July 27, 1902, he enlisted in the U. S. Navy and throughout his stay there was considered a good sailor. Oct. 5, 1904, at 11:30 p. m., while in a fight with another sailor, he was struck by the latter, fell down, striking his head on the pavement, was picked up by the police, who thought he was intoxicated, and taken to the first precinct station. There he was kept in the cell until 8 a. m. the next morning, when he was transferred to the casualty hospital. The naval authorities were communicated with and the patient was removed to the Naval Hospital on the same afternoon. The records of that hospital show that he was in a semi-comatose condition; pulse was slow and full; there was an odor of alcohol on his breath; there was slight confusion present, and a slight deviation of the left eye outward and upward. There were no paralyses and no vomiting; sensation was normal; temperature 100 F.; urine negative; involuntary urination and defecation; patient was restless. Behind the right ear there was a redness which appeared to indicate a fracture at the base of the skull, posterior fossa. Otherwise, no outward signs of injury to the skull were apparent. October 7, the patient appeared brighter; was taking nourishment; his brain was clearer; he answered questions; both pupils were equal and responded to light. There were no eye symptoms and no paralyses. Urination and defecation were involuntary; temperature between 98 and 100.4 F.; pulse slow and full. October 9, the patient's mind was clearer; he passed urine and feces voluntarily, and asked for nourishment; no localizing symptoms. October 10, mental condition not so good in the evening; involuntary evacuation of bowels and bladder; no localizing symptoms. October 12, the patient seemed stronger physically; polyuria was present; specific gravity of urine 10.06; acid; no sugar; no albumin; the patient had polydipsia. October 16, he talked irrationally; continually asked for water. October 18, he answered questions; could not tell his age correctly; talked disconnectedly. October 20, the patient was stronger; was restless; tried to drink urine; October 23, still wanted water; imagined he had $10,000,000 on the books; talked rapidly and at times disconnectedly.

The patient was admitted to the Government Hospital for the Insane Nov. 3, 1904, with a diagnosis of delusional insanity. On admission the physical examination was negative except for diminished patellar reflexes and absence of the plantar and cremasteric reflexes. Mentally he was dull, suspicious and apprehensive. Auditory hallucinations were prominent and he showed numerous delusions of a persecutory and grandiose type; complained of people cursing and abusing him; they were accusing him of performing certain indecent acts; heard someone say that they were going to spend $35 for poison with which to poison him. This same voice tells him that he is God and that he cannot die. Emotionally he was rather indifferent, seclusive on the ward, had no insight into his condition. As a rule, he behaved well but had frequent impulsive, violent outbreaks of anger, when he attacked other patients. He had no recollection of the accident, denied all knowledge of ever having been hurt or of having been arrested and subsequently taken to a hospital. All he knew was that he had a fever. In 1908 he was noted to still have pronounced auditory hallucinations and delusions of a persecutory type. Orientation, attention and comprehension were good; judgment impaired; no insight; at times the patient

6. Audernach: Aertzl. Sachverst Ztg., No. 17.

7. Kreuser: Württemb. Ztschr. f. Rechtspfl. u. Verw., ii, No. 1.

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was depressed and worried; became easily excited and had a violent, uncontrollable temper, with frequent impulsive outbreaks of violence. At the time of writing this paper he is still confined to a ward for criminal insane on account of his violent, impulsive attacks on other patients. He is well oriented; has persecutory delusions, based on auditory hallucinations; no insight; is somewhat euphoric and egotistical; says that he is a highly educated man, and knows several languages. As a matter of fact, he speaks English very poorly and has great difficulty to find the proper word with which to express himself in his native tongue.

On closer questioning a retrospective amnesia, extending for a period of about two days before the accident occurred, was found to exist. He still denies all knowledge of the accident. There can be no doubt that this man's psychosis followed on the heels of the head injury, and his mental disturbance corresponds to a typical paranoid state. The patient shows now, over six years after the accident, no perceptible deterioration.

CASE 2.—F. L., aged 58 on admission June 16, 1910. Nothing is known of his family history; birth and childhood normal; school and occupational careers uneventful. May 25 or 26, 1904, while in Alaska, he was struck over the head with a club during an altercation with three other men, two of whom he shot and killed, for which he is now under sentence for twenty years. The prison authorities state, in the papers which accompanied him on his transfer here, that he was erratic since admission to the prison Oct. 19, 1906. December 14, 1909, he was placed in an isolation ward for observation on account of writing scandalous letters and throwing them on the gallery of the cell-house, in order that other prisoners might pick them up and cause trouble. He has delusions of persecution. Diagnosis, paranoia.

Physically, on admission here, he showed a slight, coarse tremor of extended fingers; pupils were irregular in outline; mentally he was nervous and irritable; was as a rule cheerful and self-satisfied; quite talkative, and his conversation showed a marked degree of circumstantiality. He had a very exaggerated ego and was at times quite witty and quick to catch a joke. He comprehended well and his replies were coherent and relevant as a rule, but at times he would bring in a lot of irrelevant matter. His attention was mobile; consciousness unclouded; no delusions or hallucinations could be elicited; memory apparently unimpaired; emotionally he was cheerful as a rule, but inclined to be very cyclothymic; at times very irritable and fault-finding; made numerous requests daily; was always busy doing something on the ward.

He had numerous suggestions for the improvement of the hospital; read a good deal, and whenever seen, he commenced to elucidate a new scientific subject which he had been studying. He was neat and tidy in his habits but somewhat careless; was friendly towards those about him. He stated that ever since the injury his head had been "on the bum." For a long time after the injury he had frequent attacks of swooning, and on stooping over or turning in bed he often felt as though he would slide or pitch over. He asked to be sent here from prison in order to have his brain examined with an *x*-ray machine, and if it showed up any rotten spots like a specked apple, his skull could be opened and these spots scooped out. At the time of writing this paper the patient is in a state of mild hypomania; he is constantly busy with something or somebody on the ward; has numerous ideas as to improvements which should be instituted in the hospital; continually jumps from one subject to another without any directing goal. He possesses a pathologic degree of euphoria, is very unstable emotionally, somewhat irritable and impatient in a conversation, always wanting to have the upper hand; writes voluminous letters, using very flowery descriptions, and underscoring them in numerous places. He shows no clouding of consciousness and no appreciable memory defect, except that he is not certain about the date of the accident; he thinks it is either the twenty-fifth or the twenty-sixth of May. Here is a part of a conversation held with him Nov. 1, 1910:

"How do you feel, Mr. L.?" "I feel—say, I had a fine walk to-day; say, you see those gutters out there? They are natural sluices; we of course make them out of boards; so they started to inquire about me up there at the post-office. Say, I wish you could read that letter I wrote to the Attorney General." "You haven't told me, yet, how you feel, Mr. L." "All right, but say I had a swoon and my head goes round. Tell me what is epilepsy? I would like to know; you know they beat me unconscious; that letter, though, explains the whole thing; even the others said so," etc., etc.

The symptom-complex in this case resembles very much a typical state of hypomania, and there is very little doubt that its inception dates back to the time of the injury. The prison officials noted him to be erratic on arrival at the prison. His transfer to this institution probably became necessary because of an aggravation of his condition; this may perhaps be due to some arteriosclerotic changes in the brain. The patient is in the arteriosclerotic period.

CASE 3.—N. M., a white man, aged 57 on admission June 18, 1910. One brother died of paresis, a sister at the time of his admission suffered from the fourth attack of recurrent mania; patient was always a man of limited mental endowment; he was the oldest boy in his class and was graded the lowest, reaching the third grade at the age of 12. He led an uneventful life, always using alcoholics. May 14, 1910, he was thrown to the ground from the rear platform of a car, sustaining a fracture at the base of the skull, on which a decompression operation was performed May 20. Following the accident the patient was in an almost completely unconscious state until the time of the operation six days later. He states that all he remembers was that he had a pain in his head. Following the operation he was confused, excited and at times violent; was very restless, wandered away from the house, losing his way, and was picked up on the street by the police and taken to the station house. On admission here, about a month after the injury, the patient was still slightly confused, but he cleared up in a very few days and was discharged recovered three weeks after admission. This case is a fair illustration of a simple confusion or delirious state following head trauma, with a complete recovery.

CASE 4.—B. McK., a white man, aged 28 on admission Feb. 19, 1908, from the Naval Hospital at Philadelphia. The patient was a primitive individual of very meager attainments; early childhood and youth uneventful; at the age of 14 he fell, striking his forehead, and sustained a scalp wound which bled very profusely. His occupational career following this was of the lowest type; he would do any common labor which he could get, and finally on May 9, 1906, he enlisted in the U. S. Navy. In March, 1907, while on the ship *Connecticut* he fell from his hammock striking his head on an ammunition pack. Following this, he developed severe headaches, loss of memory, was frequently absent from duty for a day or so without any apparent cause, and could give no explanation for such absences; he had violent outbursts of temper, was very suspicious, seclusive and melancholy. Physically he showed a fibrillary tremor of extended fingers, knee-jerks slightly exaggerated, mild ankle-clonus, especially on the left side, speech somewhat thick and ataxic. After a short stay in the hospital he cleared up completely and was discharged July 2, 1908, as recovered. This is another illustration of mild mental disturbance, resembling somewhat a confused or delirious experience, following head injury, and which cleared up after a short time.

CASE 5.—R. P., white, male, aged 44, Scotchman; family history negative, birth and childhood normal. He attended school between the ages of 4 and 17, graduating from grammar-school at 15; states that he was one of the first in his class. He launched on his occupational career immediately after leaving school, entering a jute concern as an apprentice and remaining there for three years. There he learned bookkeeping and business methods, and the inspection of jute. He made good progress and left at the expiration of his apprenticeship. While there he attended night school for six months. On arriving in this country at the age of 17, he soon obtained a position with a New York dry-goods firm, leaving that firm after a sojourn of one year because he had obtained a position as bookkeeper at a better salary. Here he remained four years, when he left and went on a three months' visit to Scotland. On returning to this country, he received a position as

cashier for a metal company. This position he held for two years, when he was appointed manager of a real estate concern at a better salary. He used alcoholics in moderation up to 1896, but was never intoxicated to his knowledge up to that time. In 1896 (the patient does not remember the exact date), at the age of 33, he was thrown from a horse, striking his head on the pavement. He denies having been intoxicated at the time of the accident. He was picked up in a dazed condition; does not think he was totally unconscious at the time; remembers trying to get up but was unable to do so. He was taken to his boarding-house but has no recollection of this, remembers faintly being put to bed and having a severe convulsion; thinks the convulsion started with the muscles of the left side of his face and neck; remembers that his tongue was being protected by a spoon placed in his mouth; also that his fingers were in a spasm; lower extremities were not involved and he was not unconscious during the attack. He was told afterward that in one day he had thirty-six seizures. These epileptiform attacks lasted for a period of two weeks. He believes that he struck on the vertex of the skull over the parietal region; also suffered from occasional headache at that time. Vision and audition are unimpaired; there was no bleeding from any of the cranial apertures. Immediately following the accident he lost the power of speech and it was fully two months before he could articulate. According to his description of the speech defect, it was in all probability a purely motor aphasia. He says the words would come to his mind but he could not express them. After a stay of two weeks at his boarding-house, he was removed to a hospital where he remained four months; he says that his memory was affected during this time; that he was unable to think normally, and is certain that he was confused for some time following the injury. He states that he had no clear recollection of the accident, and that it was his friends who supplied him with the details. A letter which he wrote home about two months after the accident was kept by his people as evidence of his abnormal mental state. He recollects that he was able to perform the mechanical part of the writing, but that his ideas were confused. He gradually improved and was finally discharged as recovered. After leaving the hospital he obtained a position with a bicycle firm where he remained for two years; when the Spanish-American War broke out, he volunteered, and after eleven months' service in Georgia, he obtained an excellent discharge. He then joined the regular army and after serving his enlistment in the tropics was sent home with an excellent discharge. During this term of service he was summarily court-martialed four or five times, mostly for absences without leave, caused by his alcoholic indulgences. On being discharged from the army, he obtained a position as night clerk in a hotel, where he remained until 1906, when he reenlisted and was assigned to recruiting duty at San Francisco. At this he remained for about two months, during which period he had a summary court-martial for absence without leave, caused by drinking.

Shortly afterward, complaining of sore throat, he was sent to the observation ward of the general hospital at the Presidio and later was transferred here. The medical certificate on his admission stated that the patient used alcohol to excess; that on admission to the Presidio Hospital, he was nervous, egotistical, pugnacious, prevaricated, had fixed delusions about religious matters, was obscene, abusive and irresponsible. Physical examination was negative except for dilated facial capillaries and tremor of the extended fingers.

On admission here he showed a hypomanic state, was excited, had flight of ideas and prevaricated much. Later on, a depression set in, from which the patient gradually recovered. "Confabulations" were marked throughout. He was discharged Nov. 23, 1910, to accept a position with the Salvation Army, after a sojourn in this institution of almost twenty-eight months.

The life-history of this patient has been gone into with more detail in order to show how his head injury marked the turning point in his career. A Scotchman of average education, he came to this country and launched on a career which showed a steady ascent, at the age of 33 having reached a well-paying position as manager of a real estate firm. He meets with this head trauma, and we next see him occupying a low-salaried position in a bicycle shop. Then he turns to the army. Here he apparently finds great difficulty in adjusting himself to the prescribed, well-regulated army life. He was court-martialed five times during his first enlistment. He makes another attempt at getting along on the outside, but fails and finally returns to the army. The second attempt here starts out with a court-martial, and he finally breaks down, developing a psychosis. After spending twenty-eight months under the well-regulated and tranquil life of an institution, he lands in the Salvation Army, one of the havens for human derelicts.

Here, indeed, the far-reaching effects of a head injury can well be seen. In his case, it robbed him of the forces which are so essential for the battles of life, the faculties which bring about an adjustment between individual and environment. The importance of this class of mental disturbance to the general practitioner, and especially for the practicing neurologist, can hardly be overestimated, especially when we remember that according to Friedman's statistics, 60 per cent. of all concussions of the brain are followed by psychic disturbances for a year or more after the injury, and that according to Ziehen, the traumatic psychoses form 3 per cent. of all admission to hospitals for the insane. The general practitioner is the first one called on to attend these cases, and while he is prepared to meet the immediate effects of the head injury, he must not forget that next to the question of whether the patient is going to live or not, he is confronted with the problem of giving a prognosis as to what effects the injury will have on the patient's future life.

It is conceded by many that injuries of the brain, if not severe enough to prove fatal, heal very benignly; and the question of paramount importance which then comes up is not one of immediate interest, not one of death and life, but one of a more far-reaching importance, namely, "How will the future life of the patient be modified by this injury?" It must also be borne in mind that liability litigations, and suits for damages often arise in these cases, and the physician is the one called on to give the most important evidence in the case, namely, to what extent the individual has been deprived, by this injury, of his physical and mental earning capacity.

I have refrained from discussing the various neuroses or psychoneuroses which may follow trauma of any kind, and head trauma in particular, because my cases deal exclusively with the psychic part of the question. I will, however, mention in passing, that a score of German neurologists, headed by Mendel, now recognize a definite liability-law-hysteria of neurosis; that is, the existing liability law forms the psychogenic factor in these cases. I mention this because the question of malingering, simulation and exaggeration of symptoms, may also occur in what appears to be the purest kind of traumatic psychosis. Kreuser, however, comes to the conclusion that the above traits are rarely concomitants of the symptom-complex following head injuries. The common picture is one of such a severe disturbance of the individual's affects as to lead the victim to the life of a tramp and criminal.

CONCLUSIONS

The above considerations lead me to the following conclusions:

1. There is no psychotic entity which can be diagnosed as a traumatic psychosis without a history of a

definite relation of the mental disturbances to a preceding trauma of the head.

2. Contrary to Kreuser's views, even what he terms endogenous psychoses can be brought on by head injuries, as our paranoid and hypomanic cases show.

3. The prognosis is favorable in the cases which show acute mental disturbances, such as acute delirious or confusional states, while in those cases which resemble what Kreuser terms the endogenous psychosis, the prognosis is extremely bad. The hypomanic patient is still insane six years after the injury, while the paranoid patient has shown no appreciable improvement since the occurrence of the accident in 1904.

4. The last one of my series of cases shows that head injuries may have a lasting deleterious effect on the individual; that while a cross-section at any particular point may not show any gross pathologic findings, yet a study of the entire individual's life will reveal a decay of his finer functions of intellect, which stamps him as a chronic psychic invalid.

THE PROGNOSIS AND END-RESULTS OF TREATMENT OF GASTRIC ULCER

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The prognosis of gastric and of duodenal ulcer, as regards the percentage both of the mortality and of the curative effect of treatment, is difficult to determine. A mass of statistics is available but in many respects these statistics are insufficient and misleading. This applies to the reports of both medical and surgical cases.

Many of the discrepancies that exist between the statistics of physicians and surgeons are due to the fact that they refer to entirely different types of ulcer. The physician meets varieties that are not apt to come at any time under surgical observation. The physician sees all kinds; the surgeon sees only a limited number and a limited variety.

Let us consider for a moment the varieties of ulcer that come under the care of the physician and compare these with the varieties of ulcer that come under the care of the surgeon.

I. The physician is called on to treat as ulcer, three distinctly different sets of cases:

First, there are acute ulcers, constituting 15 to 20 per cent. of the total number of ulcerations. These are almost regularly amenable to medical treatment and afford a large percentage of the cases of ulcer in which permanent cure is obtained. It may be said that permanent cure is obtained in at least 90 per cent. These acute ulcers, however, by reason of their tendency to hemorrhage and perforation, add materially to the mortality rate. They do not come as a rule under the observation of the surgeon, except in the event of perforation, or more rarely of hemorrhage.

Second, there are cases of chronic ulcer with or without complications, such as recurring hemorrhages, perigastric adhesions and pyloric stenosis. These are the purely border-line cases and are seen alike by the physician and surgeon. The prognosis in these cases depends , (1) on the actual number that are really cases of ulcer; (2) on the thoroughness of the medical treatment, and (3) on the care that the patient takes of himself during his convalescence. These are practically the only ulcers which the surgeon sees and he sees only a part of them.

Third, there are the cases which are diagnosed as ulcer but which are not ulcer. When a surgeon operates on a patient, he sees the ulcer and recognizes it as such. The physician, on the other hand, makes his diagnosis without the benefit of such palpable and visible evidence, and may or may not be correct in his conclusions. It is certain that very many patients are treated for ulcers who are really suffering from chronic appendicitis or gall-bladder disease.

A few years ago, wishing to trace the end-result of ulcers treated by me, I sent circular letters of inquiry, to former patients, limiting the inquiries to those alone in whom the diagnosis of ulcer seemed certain.

Twelve per cent. of the replies received were to the effect that after the ulcer treatment, the symptoms had improved but had not entirely ceased, until, after an acute attack of appendicitis, the removal of the appendix had been followed by entire and permanent cessation of the gastric symptoms. This experience has never been forgotten.

In a recent article Cabot gives the results of a series of autopsies at the Massachusetts General Hospital, and finds that peptic ulcer, gastric and duodenal, was correctly diagnosed in but 36 per cent. of cases; ulcer was present, but not diagnosed, in 56 per cent.; ulcer diagnosed, but not found, in 8 per cent.

In my experience, from 12 to 18 per cent. of cases treated as ulcer are treated on a wrong diagnosis. Here comes in the weakness of the medical statistics. Not only are we liable to commit diagnostic sins of omission and of commission, but the range of such errors varies according to the different observers. One physician will not make a diagnosis of ulcer unless confronted by a case that runs a classical course, or one attended by hemorrhage or perforation, while another with equal clinical experience will diagnose ulcer on far less positive evidence.

It is evident that if one waits for an ulcer to run an aggressive and unmistakable course before making a diagnosis, one's mortality rate will be higher than if one included the milder and more amenable cases. The personal equation has a most important influence on statistics.

If, on the other hand, ulcer is too readily diagnosed we shall include a large number of cases of chronic appendicitis and gall-bladder disease, and thus be led to incorrect conclusions.

The inclusion of these cases incorrectly diagnosed will not add to the percentage of mortality, but rather to the reduction of the death-rate. On the other hand, it is obvious that we materially increase the percentage of those who are merely improved, or uninmproved, and we reduce the number of those clinically or permanently cured.

II. The surgeon, on the other hand, sees very few of the acute cases except in the event of perforation or hemorrhage; nor does he include among his cases of ulcer, those in which the ailment has been incorrectly diagnosed. He sees only these chronic ulcers with or without complication, in which exploration proves the diagnosis to be correct. Nor does he see all of these cases. He merely sees such a proportion of them as have proved rebellious to medical treatment, either because the ulcer was not one that could be cured by medicine and diet, or because the treatment by the physician had been insufficient, or because the patient had not been intelligent or persevering enough to carry out the treatment for a sufficient length of time.

It is natural for him, therefore, to take a more gloomy view of the results of medical treatment than would seem warranted by facts. This brings us to the difference in prognosis according to whether the statistics are compiled from private or from hospital sources.

In hospital cases the mortality is naturally greater than in private practice, because of the greater severity of the cases admitted and because of the larger proportion of cases entering the wards with severe hemorrhage or perforation. In 100 consecutive Bellevue Hospital cases, 17 per cent. of patients were admitted because of alarming hemorrhage; 7 per cent. because of perforation.

The results of treatment are very different in the two classes. For medical treatment to produce results in chronic ulcer, it should be continued for a long period of time, even after the cessation of symptoms. Hospital patients remain in the wards just as long as they suffer pain, and leave as soon as they are fairly comfortable, returning to a promiscuous, unsuitable diet and to a disregard of all medical conventions. No wonder, therefore, that so many are unimproved and that so many relapses occur. It is only after alarming hemorrhage that many of the hospital patients will undergo any treatment at all. The comparatively small number of perforations which occur in patients who have had an ulcer treatment because of hemorrhage shows the beneficial effect of medical treatment, even though it be inadequate to effect a permanent cure.

The difference between hospital and private cases has been well shown by Musser in a recent article. According to this writer, the mortality from ulcer treated medically in private practice was 3.1 per cent. In patients treated medically for ulcer in hospitals, the mortality was 12.4 per cent. These are figures compiled from a large number of sources.

Musser concludes that about 8 per cent. of ulcer patients, combined private and hospital, die as the result of the disease.

My own experience coincides remarkably with the figures just given. The mortality of ulcer treated in private practice has amounted to 3.1 per cent., the precise figure given by Musser. If we exclude the patients who are practically moribund when first seen, however, the mortality after treatment was begun was almost negligible. In compiling these reports of hospital cases, however, I have excluded those in which death resulted from intercurrent disease, not associated in any way with the gastric ulceration, comprising three cases of acute lobar pneumonia, one of uremia, one of arteriosclerosis and cerebral hemorrhage, in which chronic ulcer in the stomach was found at the autopsy, which had given no symptoms during life and which had in no way contributed to the death of the patient.

The general mortality of private and hospital patients combined, amounted to a little less than 7 per cent. My figures include about 175 ulcers in private practice, eighty-four in hospital.

PROGNOSIS OF ULCER TREATED SURGICALLY

Operation for gastric ulcer yields far better results when done by experienced operators than when done by the profession at large. The results obtained by such men as the Mayos, Robson, Moynihan and Finney, afford striking proof of their clinical wisdom, their skill in operation and their infinite genius for painstaking work.

In the leading hospitals of this city, gastro-enterostomy is done with a mortality that probably does not exceed 2 per cent. The result has been that gastro-enterostomy is no longer regarded as a formidable operation. One prominent New York surgeon writing to me on this subject says: "The operation in a benign condition is but a little more dangerous than an interval appendix operation."

It would be very unfortunate indeed if the general impression prevailed that gastro-enterostomies could be done as safely as this. These men are specialized surgeons and skilfully trained. The mortality of the operation as done by the profession at large is quite different, and the reports of physicians whose patients are operated on by different surgeons of more or less experience are not so very satisfactory.

In 150 benign cases quoted recently by Bettman and White, the immediate mortality was 10 per cent. Musser's combined statistics show fatalities in 11.4 per cent. of cases in private practice, 20 per cent. in hospital. Hall reports six deaths of his patients operated on by different surgeons. Dunham within two weeks reports that of forty-eight patients with ulcer under his care, on whom operations were performed, twelve died within seventeen days and six of these within three days, making an immediate mortality of 12.5 per cent. He estimates the mortality of operation for gastric ulcer in the past four years to be a trifle over 10 per cent.

Before accepting this figure of 10 per cent. mortality by surgical treatment, two facts must be considered:

1. It is but fair to the surgeon to say that many physicians are often extremely remiss in dallying too long with medical treatment, and turning over to the surgeon as a last resort an exhausted, starved and often bloodless patient. It is but fair to the physician, on the other hand, to say that the recent improvement in surgical statistics is not alone due to improvement in the surgical technic, but in great part to the wisdom of the physician in calling in surgical help earlier and in better-selected cases.

2. The ordinary operation for gastric ulcer is gastro-enterostomy and the low mortality rate of gastro-enterostomy is fixed in a few medical, and in many surgical minds, as the general surgical treatment of ulcer. As a matter of fact many ulcers are excised, some in accessible regions, others in regions more difficult to approach and these more severe operations raise the death-rate materially over that of gastro-enterostomy pure and simple.

It is very likely that many of these complicated operations are included in statistics under the general heading of gastro-enterostomy. In this way we may be unfair to gastro-enterostomy as an operative procedure, but, on the other hand, the operative results thus obtained are the real surgical risks of operative treatment of ulcer.

My own figures are as follows:

Twenty-six private patients operated on for ulcer in the past six or seven years, with six deaths, two after exsection and gastro-enterostomy; four after gastro-enterostomy alone. I believe that all but one (on whom exsection was performed) were good surgical risks and were carefully selected cases. No patient on this list had hemorrhages or perforation. No death was due to faulty technic as far as I can see. There were two vicious circles requiring secondary operation, and one jejunal ulcer that required four ulcer treatments for its cure.

I would conclude, therefore, as to mortality percentages as follows: (1) mortality in uncomplicated gastro-enterostomy by a skilled surgeon, 2 to 3 per cent.; (2) by the average surgeon, 6 to 8 per cent.; (3) general

operative mortality including exsections, not far from 10 to 15 per cent., when performed by good men.

It is extremely important for the physician in charge of an ulcer case, that requires surgical interference, to choose as his confrère an operator of known skill and experience in gastric surgery whose death-rate is increasingly low.

END-RESULTS OF MEDICAL TREATMENT

It is difficult to arrive at satisfactory conclusions by a study of the statistics available, because, as a rule, the patients are not followed long enough to determine whether or not the ulcer has actually healed. The relief, or even the total cessation, of symptoms should not bring an erroneous belief that the ulcer is healed, for in many of the patients, even in those who conscientiously carry out the instructions of their physician, symptoms of ulcer sooner or later reappear, and the relapse may be as serious as was the original attack.

The length of time of freedom from symptoms which must elapse after treatment before the patient can be declared cured is an arbitrary one, but it may be said that two years at least must elapse without symptoms before any conclusions can be drawn.

It is obviously more difficult to trace hospital patients than those seen in private practice, but when they can be followed, it will be found that relapses are much more frequent than in those whose mode of life and intelligence guard them from the obvious faults of living which militate against those in the lower walks of life. The longer the patients are followed, the greater is the number of medical failures that become evident. No value can be attached to the reports of cases that are not followed for at least two years. It may be said from a study of statistics that conform to scientific requirements, that, under medical treatment, about 80 per cent. of patients are apparently cured, and that in hospital practice one-half of these, and in private practice one-quarter of these, relapse, making a permanent cure in 40 to 45 per cent. of hospital cases and 60 to 65 per cent. of private cases.

Greenough and Joslin found that in the Massachusetts General Hospital, while 82 per cent. of patients with ulcer were discharged as "cured" or "relieved," only 40 per cent. remained well. Sears estimates the number of medical failures after five years at 50 per cent. Mumford and Howe estimate 80 per cent. of apparent cures, of which one-half relapse. Hewes, in fifty-one cases, found forty-eight patients apparently cured; in two years 63 per cent. of these remained well. Paterson, in seventy-two hospital patients discharged as cured, found that but nineteen remained well, seven were doubtful, forty were still suffering, five had undergone surgical treatment, and one had died.

In the remaining 20 per cent., the immediate result is not brilliant, a certain amount of distress still remaining, although as a rule the patients are benefited to a greater or less extent by their treatment. The number of those who show no improvement whatever is relatively small, probably not over 5 or 6 per cent. It is quite certain that many of these improved or unimproved cases are not ulcers at all.

In 1897 Von Leube, in a communication before the Thirteenth Surgical Congress, announced that, whereas the former mortality of ulcer had been as high as 13 per cent., the enforcement of the rigid treatment inaugurated by him had been promptly followed by a marked reduction in the death-rate. In 556 cases reported by him, 74.1 per cent. of the patients could be considered cured, 21.9 per cent. improved, 1.6 per cent. unimproved, and 2.4 per cent. had died.

In 1909 Von Leube[1] gave the total of his later results to date and they show a surprising improvement over previous records.

Of 627 patients treated in the previous eleven years in his clinic and in his private practice for ulcer, with and without hemorrhage, 566, or 90 per cent. were clinically cured, (76 per cent. within four weeks, 14 per cent. in a period longer than this); fifty-three, or 8.5 per cent., were improved; six, or 1 per cent., remained unimproved, and two patients, or 0.3 per cent., died as the result of hemorrhage.

Tabulating the ulcers that were attended by hemorrhage, he found that seventy-two patients, or 90 per cent., were clinically cured (66 per cent. within five weeks, 24 per cent. in a longer period of time than this). Five, or 6.25 per cent., improved, one, or 1.25 per cent., remained unimproved, while two patients, or 2.5 per cent., died.

These are astounding results. I make use of the term "clinically cured," however, because Von Leube states in his communication that he regards as "cured" those patients in whom the symptoms disappear for a period of three weeks, and in which ordinary hospital diet, not especially prescribed for gastric cases, but given to those patients whose digestion is good, is eaten without discomfort. He notes that occasionally an ulcer is only apparently cured, and, that after a longer or shorter time, pain, dyspepsia and hemorrhage may reappear; but in his experience such a relapse occurs only in very rare exceptions.

It is unfortunate that Von Leube has not followed up his cases for two years or more, and given us the end-results thus obtained, because as they stand at the present time they give us only the temporary result of treatment; further than this they mean nothing. My experience leads me to believe that under a rigid ulcer cure fully 90 per cent. of patients may be considered "cured" in the sense in which that term is used by Von Leube, but I am not so optimistic as to the after-results of treatment.

Of the patients I treated for ulcer by a rigid and thorough ulcer cure, and followed for over three years, 66.6 per cent. were clinically cured, 16.6 per cent. relapsed, leaving 50 per cent. permanently cured; 22.2 per cent. were improved, 5.5 per cent. were unimproved; 5.7 per cent. of the patients died (not, however, as the result of ulcer).

END-RESULTS OF SURGICAL TREATMENT

Owing to the fact that the great advances made in gastric surgery have been so recent, notwithstanding the large number of patients operated on, only a few can give a postoperative history of sufficiently long duration to be authoritative as to ultimate results. It must be conceded, however, that in no other field of operative work have more brilliant results been effected, both as regards degree of improvement and permanency of cure. Since the reports were written, however, under the excitement of their successes, it is possible that too much has been claimed by operators for surgery.

Deaver writes: "Surgery allows 95 to 98 per cent. of patients to recover." At the same time he published the table reproduced here of surgical end-results, in which the average of cure is but 86 per cent.

1. Deutsch. med. Wchnschr., June 3, 1909, No. 22.

END-RESULTS OF OPERATIONS FOR BENIGN DISEASES OF THE STOMACH AS SHOWN BY DEAVER

Operator	Patients Traced	Cured	Percentage
Mayo (1908)	234	189	80.7
Moynihan (1908)	247	211	85.42
Czerny (1902)	53	44	83.0
Robson	96	89	92.7
Deaver (1900-1907)	64	49	76.5
Deaver (1905-1907)	31	26	83.87
Paterson (collective statistics)	116	109	93.9
Helferich (1905)	56	41	73.3

In Deaver's[2] own patients who were traced, only 58 per cent. had no gastric symptoms after operation, 14 per cent. were markedly improved, 6 per cent. were unimproved, while 14 per cent. had died, either from the original gastric lesion (two probably from cancer) or from some late complication such as intestinal obstruction, or vicious circle indirectly caused by the stomach condition. If we include in the surgical statistics the results of operative treatment administered by surgeons of less experience and skill, the showing is certainly not so much in favor of surgical intervention as we have been led to suppose.

Bettmann and White found that of 126 patients who survived the operation (10 per cent. having died as an immediate result of the operation), and who were under observation for a year or more, only 64.3 per cent. remained well, 6.3 per cent. were much better, while 24.7 per cent. reported as little or not better.

Paterson, by tracing the history of 116 patients who had been operated on by gastro-enterostomy at periods varying from two to nineteen years, concludes that but 85 per cent. are permanently cured. I believe that the latter figure, or even a little less, will be nearer correct than the high estimates given; that 2 to 10 per cent. will die directly or indirectly from the operation, depending on the individual surgeon who operates, and that probably 15 per cent. will derive but little benefit from their treatment.

The surgeon is too apt to regard the patient with ulcer as cured as soon as the operation is over. Properly speaking, the cure has only just begun. Every patient operated on should have an after-cure more or less strict. The proper healing of the ulcer, the cure of multiple ulcers, the danger of fresh ulcers and a lessened risk of jejunal peptic ulcers, are the reasons why such an after-cure is imperative.

I would be more inclined to employ surgery as a routine were I more fully convinced that malignant degeneration of ulcer occurs as often as it is said to do by certain operators and pathologists.

It has been known for sixty years that in a certain number of ulcers, malignant changes occur, the older writers placing this frequency at 6 to 8 per cent. basing their conclusions on the result of post-mortem examinations. In the advanced cases of malignancy that come to autopsy it is often impossible to decide whether signs of previous ulceration are present, and it is therefore to the surgeon, who has the opportunity of examining the early stages of malignancy, that we must look for accurate data on this subject.

The statements are now made that about 70 per cent. of cancers of the stomach originate from ulcer. If this be so, it must give us pause and compel us to turn to surgery as a preventive of this dread disease in our chronic ulcers.

This pathologic statement as to pathology, however, is at variance with clinical observation. Were 70 per cent. of cancers preceded by a stage of chronic ulceration, a previous history of ulcer would be found in the great majority of the cases. Here physicians and surgeons divide.

In 150 cases of cancer, Osler found an ulcer history in 2.6 per cent, and in not a single instance could it be positively diagnosed. Fenwick obtained an ulcer history in but 3 per cent. of his cancer cases, Haberlin in 2.3 per cent., Eichhorst in but 2 per cent.

In 174 cases of cancer in my care in which the history is complete, 147 patients gave absolutely no previous history of any indigestion whatever; fourteen gave a history either of alcoholic excesses and morning vomiting, or of indefinite dyspepsia that was practically negligible; while only thirteen gave a history that might point toward gastric ulcer; so that in but 7 per cent. could such a surmise be entertained. A positive history of ulcer was obtained in but 3 per cent. of cases.

This immunity from previous history of indigestion in cancer was evidently the older surgical idea.

Robson in 1901 writes in his book on cancer: "It is, however, rare to elicit a history of very old-standing stomach disorder; the first evidences of local disease appear suddenly in persons of perfectly sound health and robust digestion." In 1907, six years later he writes: "In no less than 59.3 per cent. of cancer of the stomach on which I have performed gastro-enterostomy for the relief of symptoms, the disease having advanced too far for gastrectomy, the long history of painful dyspepsia suggests the possibility of ulcer preceding the onset of malignant disease." This is a pretty rapid and radical change of ideas!

If ulcer preexists in 70 per cent. of our cancer cases, how is it that we can obtain a clinical history of ulcer in but 3 to 4 per cent. of these cases? Is it that we do not know an ulcer history when we see one, or recognize one ulcer history to the surgeon's fifteen, or is the surgical estimate based on wrong premises and unsupported by clinical experience?

Furthermore, we all have watched patients with ulcer, many of them for years. How many become cancerous after months or years? In my experience the late development of cancer on an old previous ulcer is exceedingly rare. I cannot say that the statement that 70 per cent. of cancers arise from ulcer is wrong, but regard it as important to consider and to verify. I do not regard it as proved at the present time.

INDICATIONS FOR SURGICAL TREATMENT

During the past few years, the relative indications for medical and surgical treatment of ulcer have been fully and freely discussed, with the result that at the present time physicians and surgeons have come to think and act in perfect harmony with each other. There is no such thing as an exclusive medical treatment, nor can it be affirmed that ulcer is purely a surgical disease; but while some ulcers are to be treated medically, and others call imperatively for surgical treatment, the majority are grouped near the borderline.

Acute, uncomplicated ulcers are best treated medically. This is conceded by all surgeons, who often designate this form as "medical ulcer." Relief by medical treatment is usually prompt and lasting.

Chronic, uncomplicated ulcer should not be regarded as surgical until, after a rigid and systematic course of treatment, the symptoms persist or recur. The main indication for surgery is in the failure of medical treatment to give beneficial or lasting results. It must be emphasized that the treatment should be thorough, and

2. Deaver and Ashhurst: Surgery of the Upper Abdomen, i, 108.

continued for a sufficient length of time, as medical failures are more often due to half-hearted and insufficient treatment than to actual limitations of the medical art. No treatment can be considered efficient that does not include rest in bed for at least three weeks. In general terms, it may be said that ulcers which do not yield to two months' active treatment will probably prove resistant to surgical procedures. Some consideration must, however, be paid to outside conditions, such as the amount of time that can be given to treatment, or the probability of the patient taking sufficient care of himself during the convalescent period, to prevent relapse or recrudescence. In the case of a laboring man whose family is dependent on his daily wage for the necessities of existence, and who is apt, on leaving the hospital, to disregard all dietetic rules and conventions, it may be better to recommend surgical intervention earlier than would be advisable in the case of those whose intelligence and environment allow of a conscientious observance of the details of treatment.

If, after a vigorous medical treatment, the symptoms persist, or, if in spite of every precaution, there should be relapses, indicating that the healing of the ulcer has not been complete, surgical treatment is indicated. The mortality rate and the percentage of cures are both on the side of surgery in these cases.

Exploration is demanded without loss of time in all cases in which there is a suspicion of malignancy.

Single large hemorrhages are best treated medically. If the bleeding is stopped by medical means, no harm is done, while the operation of opening the stomach and ligating the bleeding point, when the perforation occurs during a period of acute anemia, is extremely hazardous. Hemoglobin tests under 35 per cent. contra-indicate operation except in emergencies, in which great risks may be taken. On the other hand, hematemesis that ceases spontaneously is often accompanied by anemia even greater than this.

Recurring hemorrhages, if not relieved by a course of medical treatment, may properly be placed on the surgical list, especially if the continued loss of blood occasion a progressive anemia. In these cases operation should not be too long deferred, as there may be complicating malignancy present. Cases in which occult bleeding follows every attempt to place the patient on solid food, after a regular ulcer treatment, should invite surgical intervention.

Perforation, either acute, subacute or chronic, is a purely surgical complication. Acute perforations demand instant operation, as every hour which elapses until the aperture is closed diminishes the patient's chance of recovery. Immediate laparotomy is called for alike in those cases in which there is a slight amount of initial shock, such as are often encountered with duodenal perforations, and in those patients in whom initial shock is profound. It would be a fatal error in judgment to temporize in the one case until the indications for interference become more manifest, or to defer laparotomy on the other, in the hope of bringing the patient into a better physical condition to withstand an operation.

Pyloric obstruction, hour-glass contractions of the stomach or *persistent adhesions,* which interfere with the proper drainage of the stomach into the bowel, are to be treated surgically, although in the majority of instances, preliminary treatment by lavage and diet may so improve the general condition that the operation is performed with a minimum of risk.

Adhesions, whose presence is only to be surmised, and which do not interfere with the proper motility of the stomach, are best left untreated. An exception may be made in those perigastric adhesions, especially those between the lesser curvature of the stomach and the under surface of the liver, which are dragged on by physical exertions, or even during locomotion, and which give rise to such discomfort as to render it impossible for the patient to be up and about doing his work.

18 East Fifty-Second Street.

VERNAL CONJUNCTIVITIS AND EOSINOPHIL CELLS *

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In 1903 Herbert[1] discovered the fact that the conjunctival secretion in vernal catarrh is rich in eosinophil polymorphonuclear leukocytes, and called attention to the bearing of this fact in diagnosis. Several observers have confirmed this discovery, in that they found tissue affected with this disease rich in these cells; and Peters[2] confirmed it by finding the cells in the secretion. Axenfeld, in his exhaustive study of the pathology of vernal catarrh, emphasized the importance of these cells in diagnosis and reported their presence in eight cases in one year. LaGrange,[3] Gabrielides,[4] Blaauw[5] and Lafon[6] have lately recorded cases of this disease with eosinophil cells in the secretion.

In the spring of 1910, two typical cases of vernal catarrh came under my care in which the secretion was rich in eosinophil cells. These two cases attracted my attention to the possibility of the importance of these cells in diagnosis, and I began examining smears stained with Giemsa taken from all the cases of conjunctivitis seen in my clinic and in private practice. I continued this during the spring and summer, and I venture to publish briefly the results of this work because from it I am convinced that Herbert's discovery has received too little attention, and that we therefore continue to overlook a disease which is much more frequent than is commonly suspected.

My series of cases included all the ordinary forms, etiologically speaking, of conjunctivitis—conjunctivitis from the common bacteria, as pneumococcus, staphylococcus, gonococcus, in adult and new-born, diplobacillus of Morax-Axenfeld; several cases from chemical irritants accidentally applied, as lime and alcohol; numerous cases of acute and chronic trachoma, in two of which trachoma bodies were found; numerous cases of phlyctenular conjunctivitis; six cases of conjunctivitis accompanying measles; and, as is usual in any series of cases of conjunctivitis, there was a number of cases of unknown etiology and no bacterial finding.

In the smears from the cases of conjunctivitis of known cause, including in these the cases of measles, eosinophil cells were very rare, only an occasional one being found. In the cases of unknown etiol-

* From the Department of Ophthalmology, Northwestern University Medical School.

1. Herbert: Preliminary Note on the Pathology and Diagnosis of Spring Catarrh, Brit. Med. Jour., 1903, ii, 735.
2. Peters: Die Pathologie und Therapie der einfachen chronischen Konjunktivitisformen, Ztschr. f. Augenh., 1907, xviii, 415.
3. LaGrange: Contribution a l'étude du catarrhe printanier, Arch. d'Opht., 1908, xxviii, 337.
4. Gabrielides: Note sur la tarsoconjunctivite proliférant, Clin. Ophth., 1908, p. 158
5. Blaauw: Conjunctivitis vernalis, Ztschr. f. Augenh., 1909, xxii, 317.
6. Lafon: Examen cytologique et micro-chémique des sécrétions conjunctivales: Son utilisation en clinique, Ann. d'oculist., 1910, cxliii, 321.

ogy and no bacterial finding it developed early in the work that in a number of them the conjunctival secretion was rich in eosinophil cells. This finding led to a more careful clinical observation, when it was discovered that clinically those cases rich in eosinophil cells agreed in every point with descriptions of vernal catarrh found in the standard text-books.

Of the cases in which I was led to the diagnosis by the eosinophil cells in the secretion, there were ten; I also saw during the spring and summer three cases of vernal catarrh in which a proper diagnosis would have been made without attention to the presence of eosinophil cells, making a total of thirteen cases in a small clinic.

When it is realized that vernal catarrh is considered a rare disease, and that I recognized ten cases in a year directly as the result of Herbert's discovery, the importance of his observation in diagnosis of this disease is clear.

The experienced clinician will doubtless be surprised by the statement that thirteen cases of vernal catarrh were found in a small clinic in a year and when I found that I was seeing a case almost every week, and, indeed, one day saw two cases, I was troubled, fearing inaccuracy in my observations. However, in every case in which eosinophil cells were at all common, the objective and subjective symptoms agreed with those given in the standard text-books, and then the question came up as to the cause of the former failure in diagnosis.

I am strongly of the impression that the answer is simple and that we have not known the disease in spite of accurate, although ill-balanced descriptions of it. This is illustrated in that admirable text-book—that of Fuchs—under symptoms and course. The following passage occurs:

> The conjunctiva of the tarsus is covered with papillæ which are broad and flattened so as to make the conjunctiva appear like a pavement of cobblestones. Over the whole lies a delicate bluish-white film as if a thin layer of milk had been poured over the conjunctiva. The changes in the conjunctiva of the eyeball are still more striking. Growths arise from the limbus at the outer and inner side of the cornea under the form of brownish, uneven hard nodules of gelatinous appearance.

The above is found in his principal description of the disease. In a foot-note one finds in small print the following statement:

> The papillæ are often small or altogether absent, so that the bluish-white veil, which covers the conjunctiva of the tarsus, is the only evidence of the disease.

In the above description I believe I have relief from my fear of inaccuracy in observation, and the answer to the question regarding our former failure in diagnosis. We have heretofore made the diagnosis when papillæ existed and overlooked cases without papillæ. The cases with small papillæ or no papillæ at all are, I believe, the more frequent and it is in these cases that Herbert's observations will be of most service.

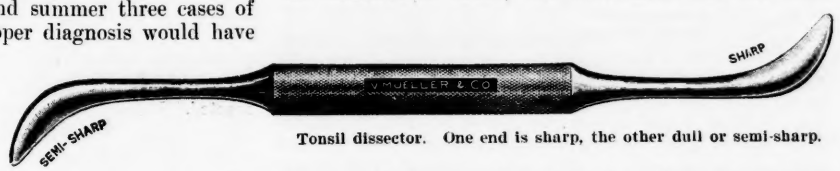
70 Madison Street.

Overfeeding in Breast-Fed Infants.—A nursing mother admits hunger as the only cause of an infant's tears. The amount of milk which she supplies depends on the demands of the infant. The child's capacity for food is limited, but the instinct to suck prevails each time the breast is offered. Hence among nurslings overfeeding is rife and alimentary disorders common.—W. J. Maloney, in the *Practitioner*.

NEW TONSIL DISSECTOR

JOSEPH B. GREENE, M.A., M.D.
ASHEVILLE, N. C.

My excuse for adding a new instrument to an already large list of tonsil instruments is its simplicity, and adaptability to the removal of the submerged tonsils, and likewise the more or less pedunculated gland. As the illustration shows, the instrument has one semi-



Tonsil dissector. One end is sharp, the other dull or semi-sharp.

sharp or dull extremity, while the other end is sharp. The dull, or semi-sharp end is for blunt dissection in cases in which the adhesions to the pillars are not strong and fibrous, and in which the plica triangularis is not present. It is especially suited for the removal of tonsils in young children.

It causes a minimum amount of bleeding, thus shortening the time of operation. The sharp end of the same instrument will be found useful in the buried and somewhat fibrous tonsils, or when the plica triangularis is prominent—a condition which requires cutting before the tonsil can be separated from the pillars.

I use this instrument to free the tonsil from its attachment as a preliminary to the use of the wire snare. For those who do not use the wire snare, however, the gland can be entirely removed by this instrument with the aid of a suitable retractor.

REPORT OF THIRTEEN CASES OF HEMIPLEGIA FOLLOWING HEAD INJURY*

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Hemiplegia due to cranial injury is perhaps of more frequent occurrence than we have been led to believe, although this complication was present in only thirteen of the 614 cases of fracture of the skull admitted to the City Hospital during the past five years. In two other cases there was paralysis of one leg, and in one case the side of the patient's face, opposite to the scalp wound, was motionless. A brief report of the cases in point follows the history of my own case.

AUTHOR'S CASE

CASE 1.—*History.*—G. P., colored, a laborer, aged 29, was admitted to the surgical department of the City Hospital, Oct. 18, 1910. Dr. Chaddock, visiting neurologist to the City Hospital, saw the patient with me. The patient was conscious and stated that two hours before admission he was struck on the right side of his head with a heavy hoe handle. On regaining consciousness one hour after the injury, he found that the left side of his body—that is, his arm and leg—was paralyzed.

Clinical Findings.—At the time of admission examination revealed a very large hematoma covering the greater portion of the right side of the patient's head. The pupils were equal and reacted to light and accommodation. Facial paralysis was absent; pain and tactile sense were absent in the left arm and leg; knee-jerks were present at time of admission, but fifteen minutes later the knee-jerk in the left leg had disappeared.

* From the St. Louis City Hospital.

The left leg and arm were paralyzed; the Babinski, Gordon and Oppenheimer signs were absent on both sides. There was absence of hemorrhage from the ears or nose. The pulse was 60, respirations 18, temperature 98 F. Dr. Kissel incised the hematoma and found an extensive depressed fracture of the right parietal bone, and involving the occipital bone.

Operation.—Under ether anesthesia, the usual incision was made and the depressed fragments elevated. Brain tissue escaped. The opening in the dura was enlarged and a subdural clot removed. The greater portion of the gray matter in the right Rolandic area seemed to have been crushed and destroyed by the injury. The removal of the fragments of bone was followed by a hernia cerebri. Examination of the right middle meningeal artery showed same intact. Dr. Chaddock concurred in the opinion that a basal hemorrhage was present. A piece of rubber dam was placed between the exposed white matter and the scalp and the operation wound closed with interrupted sutures. Two small drains of rubber tissue were placed in the lower angle of the wound.

Convalescence.—On the day following the operation, the patient stated that there was a slight return of sensation in the left side of his body, but he was unable to localize. There was a hypersensitiveness in the left supraclavicular and shoulder regions. The drains were removed on the third day. A grumous substance escaped from the wound for several days after the operation; examination of the substance showed it to be brain-cells and blood-cells. Ten days after operation the rubber dam was removed. Later the wound discharged a grayish liquid which showed destroyed brain-cells and staphylococci. The hernia cerebri became gradually smaller until at the time of the patient's discharge December 8 Dr. Hardaway noted that it was not prominent.

Return of Function.—As early as the first day after operation the patient appreciated a beginning return of function in the involved leg and arm. On the sixth day Dr. Kissel found that there was a slight return of tactile sense in the left leg; on the tenth day the patient could move his left leg, and on the following day he could move the affected arm but could not move the hand or fingers. From this date the improvement was very noticeable at each daily visit. Fifteen days after operation the patient was permitted to sit in a chair. November 15 Dr. Simon made a notation that the patient could walk and that the left leg and arm were functionating. The patient requested his discharge December 8. His condition was very good.

ADDITIONAL CASES

CASE 2.—Patient unconscious; pupils unequal; right dilated; both reacted; paralysis of left side of face; also left arm and leg; no marks of violence on body. Patient died within a few hours.

CASE 3.—Patient unconscious; pupils equal and reacted; tongue deviated to the left; hemiplegia on left; hematoma over right parietal bone. Operation showed hemorrhage from right and left middle meningeal arteries. Three weeks after operation there was a slight return of function on left side of body; patient had not fully regained function in limbs at time of discharge.

CASE 4.—Patient unconscious; laceration of left parietal region; pupils equal and reacted; spasmodic twitchings of chest and face; paralysis of right arm and leg; pulse 60, respiration 28, temperature 102 F. Operation revealed epidural hemorrhage. The patient died.

CASE 5.—Patient unconscious; had fallen ten feet; laceration found in left temporal region; paralysis of right side of body; pulse 84, respirations 28, temperature 98.6 F. Operation revealed a depressed fracture of the greater portion of the left parietal bone. There was an epidural clot present. Patient died.

CASE 6.—C. C., admitted May 12, 1908, unconscious; hematoma in the mid-occipital region; pupils unequal; right pupil dilated; hemorrhage from right ear; complete paralysis of both arms and legs. A linear fracture of occipital bone, going toward the base, was found. Operation revealed laceration of the cerebellum. The patient recovered.

CASE 7.—J. C., unconscious; pupils equal and reacted; pulse 68, respiration 18, temperature not stated. A hematoma was found situated in the region of the right parietal eminence. Incision showed a linear fracture. The Babinski sign was present on the right side. Operation revealed a linear fracture of the right temporal bone with presence of an epidural clot. The patient recovered.

CASE 8.—S. C.; unconscious; pulse 100, respiration 24, temperature 99 F.; pupils unequal; right pupil dilated; both pupils reacted; eyes deviated to the left. Hematoma of the vertex was found and incised, revealing a depressed fracture. Operation was performed. The fragments of bone had caused a laceration of the longitudinal sinus. The patient died.

CASE 9.—W. W., aged 64, unconscious; pupils were unequal; reacted. Incision of hematoma in left parietal region showed linear fracture in region of left parietal eminence. The patient recovered without operation. The condition of the paralyzed side of the body at time of discharge was not stated.

CASE 10.—N. U.; unconscious; hemorrhage from right ear; pupils were unequal; deep reflexes absent on both sides of body; paralysis of left side of body. A depressed fracture of frontal bone was found, associated with a linear fracture of the base. Patient was operated on and recovered. Condition of paralyzed side at time of discharge was not stated.

CASE 11.—The patient was conscious. A laceration was found in the right supra-orbital region; pupils were unequal and reacted sluggishly; Babinski's sign was present on the left side; paralysis of left arm and leg. Operation showed a depressed fracture of the frontal bone, with presence of an epidural clot in the parietal region. The patient recovered.

CASE 12.—Patient unconscious; pupils contracted and fixed. A hematoma situated in the left parietal region was incised and a depressed fracture found. There was a paralysis of the right side of the body. The patient died shortly after admittance.

CASE 13.—M. G., unconscious; pupils equal and reacted; pulse 122, respirations 22, temperature 101; paralysis of right side of body. Patient talked incoherently; died within a few hours after admission.

COMMENT

It is surprising to what extent the brain may be crushed and compressed without producing focal signs or permanent paralysis. Hemiplegia following cranial injury is a very serious complication. Six of the thirteen patients died, although the mortality of the patients operated on was only 33⅓ per cent. Ransohoff's[1] mention that the prognosis of fracture of the skull is more favorable in the conscious patients is corroborated by the findings in six hundred cases studied. Only two of the hemiplegic patients were conscious at time of admission, and both recovered. On the contrary, however, the patient with a fracture may be admitted in a conscious condition and thirty minutes thereafter may become dazed and lapse into unconsciousness and die within ten minutes. This is especially true of the patients who are partially intoxicated.

In two of the thirteen cases the fracture and the paralysis were on the same side of the body. Four of the patients presented equal pupils that reacted to light. In four cases the pupils were unequal but both pupils reacted. It is interesting to note that only two of the patients presented a hemorrhage from the ear and both recovered. The development of paralysis following cerebellar laceration is worthy of mention. The treatment of hemiplegia following fracture of the skull is too well known to require comment. Early surgical intervention saves the most lives.

4826 Delmar Avenue.

1. Ann. Surg., June, 1910.

HYPERPLASTIC TUBERCULOSIS OF THE CECUM AND COLON

REPORT OF CASE

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Cases of hyperplastic tuberculosis of the cecum are still rare enough to be of interest; hence the following case is recorded.

Patient.—F. H., colored woman, aged 30, was admitted to the State Sanitarium Aug. 15, 1905; weight 121 pounds; height 5 feet 10 inches; pupils rather small but react normally; patella reflexes increased; pulse temporarily increased; some suppression of breath sounds over left apex; abdomen soft and lax; external genitals congested; laceration of the cervix and perineum. Mental diagnosis, dementia præcox. The patient was inclined to be seclusive and did not enter into voluntary conversation as a rule. She took no interest in her surroundings and was untidy, but not filthy. The family and personal history as obtained from the patient was not reliable. The following notes were made on physical condition from time to time.

Course of Disease.—Feb. 12, 1906: Chain of enlarged glands on left side of neck extending down behind the clavicle; expansion lags on left; no râles; no known cough or night sweats. Temperature 98.6 to 100.4 F. in axilla. Tuberculous adenitis and suspected pulmonary involvement.

Feb. 17, 1906: Diminished expansion; slight elevation of percussion note and harsh breath sounds over left apex; no râles; some enlargement of glands on both sides of neck and under chin; feet somewhat swollen; liver dulness increased downwards; urine showed trace of albumin; occasional hyaline cast; few pus cells.

Feb. 29, 1906: Irregular elevation of temperature; the patient did not cough during the daytime; some blood-stained sputum found in her room in the morning; temperature 101 F.; positive diagnosis of pulmonary tuberculosis made and patient removed to the tuberculosis ward. Weight, 88 pounds.

March 3, 1906: For the past several days temperature was 96.4 F. (axilla); pulse 88 to 100; respiration 14 to 18.

March 28, 1906: Some non-localized pain in abdomen; bowel movements normal; considerable amount of fluid in abdomen which was apparently partially encysted. The patient was confined to bed, but there was no edema of face, feet, or hands; pleuro-pericardial rub; faint systolic murmur heard at the aortic interspace.

June 8, 1906: There was considerable improvement in general condition of patient; abdomen rather flabby but apparently contained a small amount of fluid; glands in neck were not quite so large; some physical signs over left apex; no fever or cough.

From above date the patient presented no symptoms of active pulmonary lesion and the abdomen became apparently normal. Owing to urgent need of room on the tuberculosis ward the patient was removed to the regular wards on March 4, 1907. The glands were still somewhat enlarged, but the pulmonary lesion had been in state of arrest for many months. The abdomen was apparently normal. From the first month of treatment on the tuberculosis ward until the patient was removed one year later there was a gradual and marked increase in weight each month. At time of removal she weighed 172 pounds, a net gain of 84 pounds.

Jan. 15, 1908: The patient was put to bed one week since on account of dysentery; stools numbered five or six per day and contained blood and mucus. Emaciation was marked; slight cough and night sweats. Physical examination of the chest was negative.

Aug. 5, 1908: The patient put to bed about one month since on account of condition of bowels. The stools at first contained some blood and mucus. This quickly disappeared, but the number of movements continued from two to four daily and were watery in character. The liver dulness extended almost to the level of the umbilicus. On the right a tumor mass was felt. It was about 2½ inches above and slightly to the inner side of the anterior superior spine, its upper margin being on a level with the lower margin of the umbilicus. The mass was hard, somewhat irregular in outline, and only slightly tender. It could be moved upward, downward, and inward to the extent of about two inches each way. It was apparently a growth connected with the cecum. There were marked emaciation, cough, night sweats, and fever chiefly at night; temperature reaching 101. A few fine and moist râles were heard over the left apex. Diagnosis, recurrence of pulmonary tuberculosis; abdominal tumor; probably tuberculosis of cecum. The patient was removed to tuberculosis ward; weight, 85 pounds.

From the above date until June 20, 1909, there was a slight but steady gain in weight at which time the patient weighed 114 pounds. From June until the day of operation, Feb. 12, 1910, there was some fluctuation in weight, with a net loss of three pounds.

During this interval the patient was kept in bed the greater portion of the time. There was no diarrhea, the bowel movements being normally formed. The patient vomited only a few times, usually at night. She was given light diet in addition to milk. On one occasion the patient vomited dinner about ten minutes after its ingestion. The tumor became more tender and the patient often complained of pain in the region of the mass.

Operation.—Feb. 12, 1910, an operation was performed by Drs. Garrard and Cline. The following note was made by Dr. Garrard: "Mass in right side found to be very strongly adherent to the parietal peritoneum. The mass delivered with difficulty in the median line, the friable intestine being opened in doing so. Cecum with portion of ascending colon resected. The ileum and ascending colon united with Murphy button. Drainage with rubber tube. Operation lasted two hours and ten minutes. Patient removed from table with pulse 140. The walls of the excised intestine were greatly thickened. The opening in the intestine was about the size of an ordinary pencil."

Macroscopic Examination of Specimen.—Pathologic report by Dr. J. H. Hewitt: "The specimen consists of a cecum and a portion of the ascending colon, the whole being about 15 cm. in length. The wall of the intestine is markedly thickened, especially as to its mucosa and submucosal tissue. In the upper portion there is an indurated fibrous mass the size of a robin's egg."

Microscopic Examination.—"The mucous surface shows the tubules moderately thinned out and great increase in intertubular connective tissue and round-cell infiltration. The wall is swollen and edematous and more or less infiltrated with small round cells. In several places along the border-line between the submucosa and the circular muscular layer there are collections of epithelioid cells surrounded by a ring of small round cells. Along the border-line between the epithelioid and round cells, and in among the round cells are several giant-cells. The muscle layers are swollen and edematous and more or less infiltrated with round cells. The peritoneal coat is thickened. It shows collections of small round-cells and giant-cells. Diagnosis: Chronic typhlitis; interstitial tuberculous typhlitis; chronic adhesive tuberculous peritonitis."

Postoperative History.—Convalescence was protracted and tedious; pulse often reaching 150; temperature 101.4 F. February 13, it gradually declined until normal was reached on the 14th. February 20 pus was found to be present in the wound; but temperature did not go above 99.4 F. The button was removed from the rectum on March 11. On March 17 it was believed that a small abscess had formed in abdominal wall and a counter-incision under cocain was made. A fecal fistula resulted. The temperature again rose and reached 101.4 F. on March 18. From this date there was a gradual decline until normal was reached on March 20. There was only a very slight rise in the pulse-rate.

On May 20 the patient was again returned to the tuberculosis ward; weight 106 pounds. There were two fistulas present. The one following the second operation healed in a short time.

Jan. 4, 1910: The patient's weight was 140 pounds; glands in neck barely palpable; limitation of expansion over left apex;

friction sound heard at the sternum in the third right interspace, also heard in the axilla; both fistulas open; very slight discharge. Liver dulness extended three fingers' breadths below costal cartilage; there was a hard nodular mass about the size of a walnut in left iliac region; the abdomen was full, rather prominent; some tenderness over the region of the uterus.

Jan. 24, 1911: General nutrition was good; no subjective complaints; abdomen prominent; non-sensitive; the nodular mass in left side still present; both fistulas healed; bowels normal.

I believe that the initial lesion began almost four years before operation. Diarrhea was not present for several months prior to operation. Alternation of constipation with diarrhea appears to be the rule in such cases. Vomiting was infrequent, which appears to be rather remarkable when the degree of stenosis is considered. The colon was markedly thickened at the point of resection, and the probability of further stenosis is to be considered. Pain was not such a prominent feature as is usually the case. The patient's mental condition may account for this in part, however.

OBSCURE CASE OF TRAUMATIC SUBDURAL HEMORRHAGE WITHOUT FRACTURE

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WASHINGTON, D. C.

In his article on "Pathology of Intracranial Hemorrhage" Spiller[1] says: "Subdural hemorrhage has been more frequent in my experience than epidural, and I have repeatedly seen a hemorrhage beneath the cerebral dura as a result of injuries to the head in cases where the skull was not fractured. This occurrence is important to remember, and sometimes the discovery of the subdural hemorrhage comes as a surprise to the operator."

DaCosta[2] says that subdural hemorrhage is usually due to depressed fracture and rupture of the middle meningeal artery, or of a number of small vessels.

According to Church and Peterson,[3] Cruveilhier asserts that in one-third of the cases of asphyxiated new-born, subdural hemorrhage is the main difficulty. The clots are commonly found over the convexity, and are, in surviving cases, a pregnant source of idiocy and cerebral palsy.

According to DaCosta,[2] "most cases of cerebral palsy seen in children are the result of subdural and subarachnoid hemorrhage at birth, and damage of the cortical motor area. The hemorrhage, in cases of birth palsy, is, as Cushing points out, usually venous and due to 'rupture of some of the delicate and poorly supported venous radicles of the cerebral cortex.' It may result from traumatism due to bone overlapping or forceps pressure during parturition, or may arise during asphyxia after birth."

In examining still-born infants and infants that died shortly after birth, Cushing[4] found that many of them died with cortical hemorrhage. In some cases the extravasations found were very large—even completely overlying the cerebral hemisphere, while in others they were found to be much smaller. In one case the clot was found in the cerebellar fossa. It was found that the vessels were most usually torn on only one side and were the unsupported radicles which enter the longitudinal sinus; hence the cortical leg center of one side is most apt to be seriously damaged. When, however, the vessels of both sides are torn, a bilateral cortical lesion results.

Cushing himself,[5] speaking of traumatic subdural hemorrhage in adults, says:

> Bleeding in the free space between the dura and arachnoid is possibly a more common consequence of injuries than the extradural form. It is a frequent complication of basal fractures, for, owing to the close attachment of the basal dura, these injuries almost always tear the membrane so that the bleeding from the fissured bone has free access to the subdural space. Similarly, fractures of the vault, accompanied by laceration of the dura, lead to extravasations over the hemisphere. The extravasation, however, may occur from an injury of some cortical or leptomeningeal vessel in cases of fracture with laceration of the brain, or, indeed, in the absence of any demonstrable cranial lesion.

He also points out that the usual type of such extravasations is a diffuse one, this being particularly so in its basal form. The blood spreads through the open subdural space, and as the arachnoid membrane overlying the basal cisterns is frequently torn by the injury, the bleeding extends over the brain stem and down along the cord, where the subarachnoid space is open, and not a closely confined meshwork as it is over the hemisphere. For this reason free red blood-corpuscles in the cerebrospinal fluid will often be found on lumbar puncture. Cushing adds, however, that, "although this diffuse form of bleeding is perhaps the most common, as well as the most critical type of subdural hemorrhage, one not uncommonly sees, particularly over the hemispheres, extravasations in this space, which have remained circumscribed owing to the rapid clotting of the blood." These subdural extravasations are usually of venous rather than of arterial origin.

The symptoms of a subdural hemorrhage, according to Cushing, differ but little from those associated with an acute increase of intracranial tension from any cause. "Although in the rarer cases of intracranial and superficial clot formation, there may be localizing signs pointing to the seat of the process, the symptoms are usually those of a generalized compression." The lesion, he continues, results from a serious cranial injury, and the clinical picture is one of cerebral contusion with compression. We find the patient unconscious, medullary symptoms almost always present, the blood-pressure high during the early stages, the pulse slow, the respiration labored, and, as stupor passes into coma, Cheyne-Stokes breathing sets in, and finally the paralytic stage of compression comes on.

It is on account of the free extravasation into the subdural space that most of the cases of basal fracture prove fatal. In some instances, however, the amount of extravasation may be so slight, that, although bloody fluid may be obtained on lumbar puncture, no really serious pressure symptoms are produced. A choked disk is said to be almost always present.

It must be remembered, however, that although the symptoms of subdural hemorrhage are identical with those of extradural, they are usually very rapid in onset and are accompanied by a more distinct drop in temperature and graver depression. No focal symptoms are produced unless the hemorrhage arises from or presses on the motor area, when convulsions, or later, paralysis, may ensue.

1. Spiller: Intracranial Hemorrhage, in Keen's Surgery, 1907, iii, 654.
2. DaCosta: Modern Surgery, 1910, p. 805.
3. Church and Peterson: Nervous and Mental Diseases, 1909, p. 75.
4. Cushing: Intracranial Hemorrhage in the New-Born, Am. Jour. Med. Sc., October, 1905
5. Cushing: Surgery of the Head, Keen's Surgery, 1907, iii, 206-209.

In brief, the main points in favor of a diagnosis of subdural rather than extradural hemorrhage are:

1. Subdural hemorrhage is the most common form of intracranial hemorrhage in the new-born.

2. It is frequently associated with depressed, and more especially, with basal fractures of the skull.

3. It is characterized by an absence of the periods of concussion and "free interval," and by the rapid onset of symptoms.

4. The symptoms are usually those of a generalized compression, with marked depression and unconsciousness, practically from the very first, and the almost invariable presence of medullary symptoms.

5. The presence of blood in the cerebrospinal fluid on lumbar puncture.

A case somewhat similar to mine is reported by Cushing. A patient was injured in a football scrimmage. There was primary concussion, followed by an actual "free interval," and the appearance of focal symptoms which pointed toward a local compression over the left lower central convolution. A diagnosis of extradural hemorrhage was, of course, made. Cushing's favorite intermusculotemporal operation was performed. No fracture of the base could be demonstrated, nor was there any extradural hemorrhage found; but there was a subdural lens-shaped clot analogous to an extradural hematoma. Removal of the clot led to prompt recovery. Cushing says that cases of this sort, however, are rare, and the surgeon is usually confronted with extensive basal extravasation.

The case of traumatic subdural hemorrhage here reported is one of more than usual interest because of the following points:

1. The occurrence of a primary injury which caused a simple incised wound of the scalp and probably resulted in nothing more than a momentary stunning.

2. The presence of a "free interval" of unusually long duration (*ten days*) from the original injury to the onset of the first symptoms of compression. This initial injury and the subsequent "free interval," are, it is to be noted, considered characteristic of extradural bleeding, but have here occurred in subdural hemorrhage.

3. The absence of any fracture of the skull.

4. The absence, except for dilated, immobile pupil on the side of the hemorrhage, of any definite focal symptoms which might have given a clue to the location of the hemorrhage, although as found post mortem, the hemorrhage was practically localized to the convex surface of the frontal lobe, with extension backward to the region of the occipital lobe.

5. The localization just described.

6. The finding at autopsy of the presence of almost completely fluid blood—which may be accountable for the last-mentioned condition.

7. The absence of macroscopic blood in the excessive basal cerebrospinal fluid.

Unfortunately a lumbar puncture was not performed, but this, as proved by post-mortem findings, would have been free from any blood.

REPORT OF CASE

History.—M. G., a white man, aged 37, for past five years has been a patient in the Government Hospital for the Insane, suffering from the katatonic form of dementia præcox. He would wander mischievously and annoyingly about the ward, picking away stupidly and mutely at the other patients.

Oct. 29, 1910, at 8:15 a. m., in a scuffle with a fellow-patient, our patient was forcibly shoved, and in falling, struck his head against the sharp edge of a heavy wooden settee, receiving a simple incised wound of the scalp about one inch long, just above the right temple. It did not require stitching and was apparently not associated with fracture. The area about the wound was shaved, the wound thoroughly cleansed, and a collodion dressing was applied. The patient did not seem stunned at the time of the injury and continued to be up and about in the ward as usual.

When he went to bed on the evening of November 7, he seemed to be in his usual physical condition. When taken out of bed for dressing on the morning of November 8 (ten days after the scalp wound was received), the patient seemed to be very weak and so was put back to bed by the attendant in charge. A little later he had an attack of vomiting; temperature was 97 F. by axilla, pulse 60, regular and full, respiration 14. At 8 a. m. he seemed to be very dull; his legs and arms jerked slightly and his breathing was labored. At 11 a. m. he was semiconscious, resistant, and held his arms rigid; knee-jerks were active, pupils normal. The patient passed urine and feces involuntarily. Intracranial hemorrhage was suspected. Hot soapsuds enema was ordered. At 12 a. m. temperature was 96.6 F. by axilla, respiration 24, pulse 60.

Patient grew more and more stuporous and gradually lapsed into deepening unconsciousness. At 4 p. m. he was absolutely unconscious; both pupils were fixed and failed to react to direct light; right pupil markedly dilated, tendon reflexes active, extremities limp, skin sensation lowered. Babinski reaction obtained now and then on both sides, but irregular in response. Respiration very slow (12), regular, quiet, but deep. Pulse down to 50 per minute; regular in rate and force; full volume; temperature by rectum, 96.2 F.; bed was wet from involuntary evacuation of urine. Patient could not be aroused. The entire scalp was shaved, but examination failed to reveal any signs of fracture. The scalp wound received ten days previously almost healed. A positive diagnosis of intracranial hemorrhage was made, but the exact site of the hemorrhage was not determined. Operation was proposed to the patient's wife, but she refused consent.

At 6:45 p. m. temperature by rectum was 97.6 F., pulse 48, full, regular, and strong; respiration 15, deep, quiet and regular. Examination at this hour showed lacrimation from right eye, signs of hemorrhage from nose on right side (clotted blood being found in right anterior nares), but no signs of fracture of nose, so far as could be detected; pupils still absolutely fixed, the right being considerably dilated, the left somewhat contracted. Ophthalmoscopic examination of right eye showed outline of disk distinct and sharply defined, with no hemorrhages. Skin reflexes were almost absent; elbow and knee-jerks increased on both sides; no ankle- or patellar clonus. The Babinski phenomenon now showed an even more marked, peculiar variability and irregularity, being present first on both sides, then more on one side than the other, and then vice versa, only to change again. Sensation was very much delayed. Very deep pin-pricks were required to elicit a response, and then only after an unusually long period. Contralateral adductor reflex could be obtained by stroking the skin on the inner side of the thigh on either side. There was a tendency on the part of the patient, to stiffen the extremities and rotate them inward, bringing the knees and elbows together. There was an intermittent tremor of the right hand, and a tendency to contract the quadriceps extensor. Kernig's sign was absent. The patient lay absolutely calm and perfectly unconscious; breathing not stertorous.

At 1 a. m. the patient's condition was unchanged, but after 2 a. m. he began to weaken; his pulse became feeble, respiration was down to 6, and death occurred at 3:40 a. m.—only twenty-two hours after the first symptoms were observed.

Necropsy.—The bladder was somewhat distended; the colon very much distended throughout. The spleen and kidneys were somewhat congested. The cardiovascular and respiratory systems seemed normal. There was a scalp wound about one inch long, one inch to right of middle line, on a line with the zygoma. This did not extend through the scalp for more than one-fourth its thickness. There was no fracture of the skull in any part, although after removing the brain, the dura was stripped and the base of the skull carefully examined.

Brain: On the right side, over the convex surface of the brain, there was a flat subdural hemorrhage. Both the dura and the pia-arachnoid were intact, but the pia-arachnoid was very much engorged. The bleeding vessels could not be found, but the blood was almost wholly fluid, with some slight, fresh soft clot, and it seemed to be mainly of venous rather than arterial origin. The blood did not extend to the base nor on to the mesial surface, being confined mainly to the convex surface of the frontal lobe, though extending backward in a thin layer, nearly to the occipital lobe. The surface of the frontal lobe, especially about its middle, was considerably depressed. This depression was so marked, that, as a result, the right ventricle was very much flattened, and contained but little cerebrospinal fluid, while there was an excess of fluid at the base, about the origin of the pons. This fluid was perfectly clear and contained no blood. There was no laceration of the brain surface, and, on sectional examination, no intracerebral injury was found.

ELECTRIC TREATMENT OF INTESTINAL OBSTRUCTION AND POSTOPERATIVE PARALYSIS OF THE BOWEL

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Intestinal obstruction and postoperative paralysis of the bowel are of such grave moment that a clinical note on this subject offering a new technic in its treatment has warrant for its publication. The method consists essentially in the employment of half-normal saline enemas in conjunction with a hollow rectal electrode connected with the galvanic current, followed later, if necessary, by faradization.

The conditions in which this treatment is useful are as follows:

1. Chronic constipation with impaction of feces.
2. Atony of the bowel.
3. Traumatic, localized and general peritonitis with intestinal stasis.
4. Intestinal torpor after shock.
5. Slight volvulus or kinks in the bowel after prolonged manipulation, and chilling of the bowel following laparotomies.
6. Intestinal paralysis after prolonged meteorism.
7. Intestinal paralysis following various forms of hernia.

The conditions in which the treatment is of doubtful or negative value are the following:

1. Intussusception.
2. Stricture of the bowel.
3. Adhesive bands about the intestines.
4. Malignant growths involving the bowel.
5. Tumors impinging on the lumen of the intestines.

In these cases surgery must be invoked, and the electric treatment can be subsequently employed for its stimulation on peristalsis.

TECHNIC

1. The nurse prepares the bed with rubber sheets and padding to prevent leakage to the mattress, and a moderately flat and long bed-pan is placed under the buttocks.

2. While the preparation is going on it has been my custom to advocate lavage of the stomach with a quart of weak saline solution (half-normal strength) at 105 F. so as to clear the stomach of mucus, bile or other debris, and check vomiting, which is usually present in these cases. Lavage also has a tendency to start downward peristalsis, especially if a small amount of liquid is left in the stomach for absorption.

3. Three or four quarts of one-half strength normal saline solution at a temperature of 105 to 110 F. is prepared and kept hot on a radiator or stove.

4. The rectal electrode, well lubricated, has attached to its distal end the rheophore connected with the negative pole of the galvanic battery and the central orifice of the electrode connects with a Davidson syringe. The electrode is introduced into the rectum as far as it will go and one quart of the fluid is slowly injected.

5. A large sponge or felt electrode, at least 4 by 6 inches, well moistened in sterile or mild antiseptic solution, is connected with the positive pole and placed over the right hypogastrium so as to cover the ascending colon, and an assistant makes firm and even pressure on it, and if necessary remoistens the electrode. This pole may be shifted to the transverse colon and in some cases to the descending colon, but in the latter case its sphere of action will be over but a small portion of the bowel.

6. The galvanic rheostat is slowly moved until 10 to 15 M.A. are registered; after three minutes of electrolysis with liberation of chlorin ions which tend to relax tissues, the pole is reversed and the pole-changer kept going for from five to ten minutes more, reversing every thirty seconds. This interruption of the current produces marked contraction of the whole musculature of the abdomen and intestines and usually produces peristalsis and a desire for evacuation. If this desire is strongly expressed, the electrode can be temporarily removed and the patient given a chance to evacuate feces or expel gas. Unless the evacuation has been eminently satisfactory, some more of the saline is again injected, and following the interrupted galvanic treatment, the attachment of the rheophores is made to the high-tension faradic coil and the current manipulated through the secondary coil so as to produce a gradually increasing, then diminishing, contractile effect. The faradic treatment is given as strongly as the patient can stand without much distress, and is continued for five minutes. The withdrawal of the electrode is then usually followed by expulsion of fluid, feces and gas.

7. After the electric treatment, the bed-pan is removed and the head of the bed elevated so that the patient is placed in an inclined position of from 25 to 45 degrees, so as to favor normal peristalsis. This is an important point in technic and should not be omitted. This position has been maintained in several cases for three days before recurring meteorism was checked.

8. Following the treatment, normal saline retention enemas, one quart at 105 to 110 F., are given every two hours until normal conditions supervene.

9. Repetition of the treatment is necessary in many cases. In one case which refused to respond, the sixth treatment, given after repeated failures during forty-eight hours, at last caused profuse evacuation. It is usual, when the condition is grave, to rest the patient for three hours before repeating the treatment. In chronic constipation or impaction a longer period (six to twelve hours) may be permitted to elapse before repeating the course of treatment.

I have been called to a large number of these patients when they were practically *in extremis*, and when all varieties of enemas, stupes and drugs had been tried. Even in such desperate straits the electric enema has, in a fair percentage of cases, proved successful.

It cannot be emphasized too strongly that the earlier the electric enema is given in all cases, the better the

prospects for success. When meteorism develops and bowel movement is not produced by the usual enema and other remedies, every hour lost with the use of turpentine, alum, asafetida and other enemas merely weakens the reactive power of the bowel and renders regeneration by means of the electric current more difficult.

The battery used in these cases consists of a twenty-four dry-cell apparatus with galvanic and faradic (high tension) attachments, rheostat and milammeter, and is readily portable to the bedside.

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BACILLUS AEROGENES CAPSULATUS INFECTIONS, WITH REPORT OF TEN CASES

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This infection is interesting because of the high death-rate and the frequency with which the condition is overlooked until too late for surgical interference. It is looked on as a rare condition, though it is more frequent than one would suppose. There have been three cases at the City Hospital since June 1, 1910, with three recoveries.

To Maissonneuve and Pirogoff is due the credit for the first clinical descriptions of the disease. Maissonneuve, writing in 1853, called the disease *gangrène foudroyante*, but it was not until 1891 that Dr. Welch discovered and described the organism. There has been much confusion as regards this organism and its pathologic processes, even the latest text-books giving little space to a clear description of this definite infection and its danger to life.

The most frequent sources from which the organisms may be obtained are the intestinal tracts of mammals and the soil, although Welch (1896) recovered it from a bullet in the head of the tibia.

The organism (*Bacillus aerogenes capsulatus*) normally grows in the absence of oxygen, although Lahey[1] demonstrated that the *B. a. c.* may grow on culture media in the presence of oxygen.

SYMPTOMS

There seem to be three principal types of the infection; namely, simple, fulminating, and mixed.

The incubation period, as nearly as could be ascertained in ten cases, was forty-eight hours. In one case it was twenty-one hours (Case 10). In the simple cases, there is slight rise in temperature and pulse, the patient appears seriously ill, and there is a dark, almost black, bloody discharge, which resembles a thin syrup. This discharge usually brings out a few small bubbles, and leaves us wondering what infection is present. *Pus is not present.*

The fulminating or malignant type depends on the severity, virulence and site of the infection, and not only affords the best opportunities for study of pathologic processes, but soon convinces one that something radical must be done and done quickly. In this type the patient is usually found with high temperature (103-104 F.) and rapid pulse (130-150), with rapid respiration (30-40 per minute), and appears critically ill. *B. a. c.* infection occurs most ofen after injuries in which tissues are pulpified and very dirty. About forty-eight hours afterward, when the wound is dressed, a dark, thin, syrupy, foul-smelling discharge escapes with gas bubbles.

The fulminating type on the leg may take on the appearance of an erysipelatous condition, though without raised borders, there being a dark or brownish discoloration. This was the condition in Case 7, plus a lymphangitis, which was at first deceptive. Blebs of variable sizes are frequently present and soon take on a blue or greenish appearance. When opened, the characteristic, foul-smelling fluid with its sweetish odor, becomes apparent. If an extremity is involved, it rapidly becomes gangrenous and distended with gas of a composition of hydrogen 64.3, carbon dioxid 27.6 and nitrogen 8.1 (burning with a pale blue flame). This was the clue to the diagnosis in Case 9, although the diagnosis was suspected from the early rise in temperature (first twenty-one hours) and the history of injury. Cultures will show the presence of organism, but with a clear clinical picture operation should be undertaken at once.

Pain was absent in all except Case 10. Here the patient's pain became very great, and as he was not furnished relief by morphin, after three attempts to get consent to operation had failed, he finally consented to amputation, which was done, and he recovered. (Blake and Lahey explain the absence of pain on the ground of the necrosing action of *B. a. c.* interfering with nerve conductivity, although the presence of gas and distention, as I believe, with its mechanical effect, must not be forgotten. A sort of anesthesia is produced.)

Delirium occurs late, after the general infection, and persists till death. In Case 4, delirium was so great that diagnosis of delirium tremens and infection was made.

Within seventy-two hours, toxemia is pronounced, and I agree with Blake and Lahey that recovery is not the rule after the third day.

Nausea and vomiting occur late, and, like delirium, are indicative of generalized infection.

The process extends chiefly by direct extension, as the gas separates and dissects between muscle and fascial planes and follows the lines of least resistance.

The lymph-glands are seldom enlarged and tender, and only when other organisms are present, as the streptococcus (Case 10). The rapidity with which the process ascends a limb probably accounts also in part for the frequency of non-involvement of lymph-glands.

Emphysema or crepitus was elicited in Cases 2, 3, 4, 5, 7, 8 and 9, and in one case gas escaped with a noise. In Case 1, a tympanitic note was elicited on percussion.

Fascia, tendons and ligaments resist infection strongly. Muscle, especially pulpified muscle, affords a flourishing site for the infection. At the wound site, the tissues are soft, friable and pulplike; while beyond, the tissues are pale and edematous, contain small amounts of gas, and are rapidly being converted into a pulpified state.

Mixed infections, whether streptococcus or staphylococcus, in which infection remains at the site of inoculation, are usually mild.

TREATMENT

Treatment is always operative unless there is a generalized infection.

In the presence of general infection, the free opening of the wound, with hydrogen peroxid as a dressing should be tried. If a leg or thigh is involved, spinal anesthesia may be used.

There are, however, two recognized methods of treatment—amputation and multiple incisions. Amputation

1. Blake, J. B., and Lahey, F. H.: Infections Due to the Bacillus Aerogenes Capsulatus, THE JOURNAL A. M. A., May 21, 1910, p. 1671.

is the operation of choice in all malignant cases, as it offers good chance for recovery. What one of us would care to treat such cases with multiple incisions and hydrogen peroxid in view of the fact that oxygen does not always kill the organisms (Lahey) and in these cases the organisms are far from the original site of the wound and hydrogen peroxid cannot reach them. Of course, in a simple case, multiple incision and hydrogen peroxid might be tried, and even oxygen carried into the wound with catheter. Under careful observation if amputation is performed when advance takes place, recovery may be expected.

Of course, an occasional limb may be sacrificed with amputation, but what when we try multiple incisions and find later a dead patient?

In my series of cases, three patients recovered (all in cases of malignant type and developing within forty-eight hours) after amputation, one leg and two arms being sacrificed. In cases recovering under multiple incision and hydrogen peroxid treatment, might not there be some other gas-producing organism?

In this series of cases, Patient 3 was of necessity treated with multiple incisions, as the infection involved the trunk. The patient promptly died, as infection was general.

PROPHYLAXIS

Ordinary antiseptics, tincture of iodin, bichlorid, etc., have little or no effect on the organism, as I have seen cases develop after vigorous treatment with these antiseptics.

CASE REPORTS

CASE 1.—H. H., a carpenter, aged 56 (No. 5776), was admitted Nov. 16, 1906. This patient was accidentally shot November 18 in a tent while on a hunting trip. He was treated by Drs. Taylor and Pickel of Festus, Mo., who forwarded him to St. Louis for treatment. The patient's condition when seen by them was as follows:

"The soft tissues were nearly all shot away just above the ankle. Both bones were badly shattered. The foot was connected with the leg only by a narrow strip of skin and some fragments of muscle. It was not dressed in any way except in the blanket that the patient was lying on. There was no dirt in the wound, more than would naturally get into it from the bedding, which was not very clean. There had been no attempt made to control hemorrhage; consequently he had lost about all that he was able to stand. He was in a state of considerable shock, so that only a trimming of the remaining shreds of tissue was performed, and bleeding points ligated. No attempt made to disinfect the wound, other than to apply a 2.5 per cent. solution of phenol (carbolic acid) and get him to the hospital as soon as possible.

The doctors at Festus were of the opinion that the infection came from the blanket in which his leg was wrapped.

When he arrived at the St. Louis City Hospital, it was found that he had a ragged amputation of the left leg four inches above ankle-joint, with much laceration of soft tissue and comminution of bones. The patient arrived at the hospital at 8:30 in the evening, having been injured about eleven in the morning of the same day. Hemorrhage had ceased when he arrived at the hospital. The leg was shaved and cleansed, put in a large saline pack without much effort to trim away the ragged tissues. Patient complained of weakness and thirst; pulse was almost imperceptible; temperature subnormal. Salt solution, by hypodermoclysis was given; external heat; patient placed in bed; antitetanic serum given; condition bad; pulse 120, respirations 24, temperature 97.2 F. Urinalysis revealed the presence of albumin and a great many hyaline and finely and coarsely granular casts.

Within twenty-four hours after the accident, amputation was performed in the middle third of the leg, the circular flap method being used. After being in the ward sixteen hours, a peculiar, stinking, sweetish odor was noticed about the patient, and on dressing the wound it was found to be discolored. Blood-culture was positive.

On the night of November 18 the patient was beginning to show symptoms of general infection, pulse 150, respiration 50, very shallow and mostly abdominal. The patient complained of pain in the abdomen and over the epigastric region. The abdomen was distended and soft, and over the left lower quadrant was a soft, fluctuating crepitus. The same condition was present over the left thigh, but in a more marked degree. The surgical wound with its dressing was not disturbed.

The patient at 3 o'clock in the afternoon complained of great difficulty in breathing. At 3:25 p. m. the patient was sinking rapidly, the heart failing to respond, although he was delirious and trying to get out of bed. The patient lost consciousness about 4 p. m., showing evidences of air-hunger, gasping for air. The heart-beat was not palpable; small, thready pulse. Patient died at 4:22 p. m., November 19, three days after admission.

This was a very virulent infection, traveling up the leg very rapidly. In a few hours, it had extended up as far as the neck, death following. Post-mortem findings were as follows:

Gangrenous emphysematous stump, universal emphysema of the subcutaneous tissues, emphysema of the heart, lungs, liver, kidneys and spleen, acute enlargement of the spleen, congestion and edema of the lungs, and a foamy condition of organs.

This case is interesting as showing another source of infection: that of a gunshot wound; it also shows that great loss of blood and pulpification of tissue influence an early appearance of the infection on account of the patient having practically no resistance. The case was an early, malignant type with general infection.

CASE 2.—M. N., a laborer, aged 41 (No. 6642), entered Nov. 30, 1907, with a history of having been run over by a locomotive. As a result, both legs from a few inches below the knees to above the shoe-tops were pulpified. The wounds were dirty. An emergency trimming operation was performed. Pulse at this time was 106, respirations 24, temperature 99 F. Antiseptics used in first-aid treatment were bichlorid, tincture of iodin, and turpentine.

On the morning of December 3, patient developed a high temperature, rapid pulse and signs of severe shock. Bichlorid pack was applied at this time. On the morning of December 4, an offensive, characteristic sweetish odor was present. There was some emphysema of the left thigh. The left thigh at 3 p. m. was greatly distended and tympanitic on percussion. At 6 p. m., the left limb was tense with gas, the gas being found subcutaneously between the fascia and muscle and up in the left groin, and it extended in the midaxillary line nearly to the axilla. Numerous incisions were made, and the gas escaped with a noise. At this time, a bichlorid and turpentine dressing was applied, with a diagnosis of emphysematous gangrene. The patient died at 8:55 p. m., five days after admission, of a general *B. a. c.* infection (clinical).

The patient had become very delirious on the evening of December 3, and delirium persisted until death.

This case is interesting, as it shows the effect of a general infection and the rapidity with which the process advances when it has once started.

CASE 3.—R. S. (permit No. 6701), schoolboy, aged 12, entered Dec. 2, 1907, at 4:40 p. m. The patient gave a history of falling off of a wagon three days previous to entrance, suffering a fracture of the tibia in the upper third, and a long, lacerated wound on the posterior surface of the calf of the left leg. The leg presented a sharply defined, bluish color extending from the ankle to the knee anteriorly and about 2 to 3 inches above the knee on the inner surface. The entire area was studded with blebs, from which a foul-smelling, greenish discharge was escaping. The wound had been closed on the outside by a physician. In the right groin was an area of discoloration 2 by 8 inches, and over the right great trochanter was an abrasion dressed with gauze covered over with collodion. Palpation of the left thigh and groin elicited distinct

crepitation—emphysema. The patient died December 3, at 4:12 in the morning, four days after the injury. Delirium in this case appeared on the third day and lasted until the end.

This case shows the effect of sealing dirty wounds and of not observing such a case closely. The clinical diagnosis was made, but there was no report of a blood-culture.

CASE 4.—J. H., a packer, aged 51 (permit No. 5321), was admitted to the hospital Oct. 22, 1908, at 11:05 a. m. He entered the division suffering from an old, compound fracture of the radius and ulna, nervous and very delirious. The diagnosis at this time was delirium tremens and compound fracture of the radius and ulna.

The arm was dark-brown in color, emphysematous throughout, and a foul-smelling discharge was escaping, but no pus. The characteristic sweetish odor was present.

Later, *B. a. c.* infection was added to the diagnosis; blood-culture positive.

The patient died Oct. 22, 1908, at 12:50 p. m. Emergency treatment was given, but could not be extensive in view of the fact that he was suffering from generalized infection.

The comment which I would make on this case is that it brings out the point that the delirium and nervousness may be so great as to cause confusion as to whether or not the patient has delirium tremens.

CASE 5.—D. C., a carriage-worker, aged 56 (permit No. 2657), admitted July 3, 1909; entered the St. Louis City Hospital with a history of severe traumatism, and as a result had a laceration of the head and right shoulder; the right hand was also badly crushed, showing evidence of pulpification, the dirt of the street being ground into the extremity. Blood-culture was positive. The patient died July 7, 1909, at 1:20 p. m., with delirium, nausea, vomiting, nervousness and all the signs of a general infection.

Consent to amputation was not obtained until the second day. Amputation was performed at the lower third of the right forearm with circular incision; skin approximated with three sutures. Drainage. A reduction of the shoulder was performed at this time. The next day ecchymosis was present about the wound, stitches were removed and thorough drainage instituted. On the fourth day, the forearm was badly swollen, discolored, crepitation of the tissues, bacteriologic examination showing presence of the gas bacillus. Incisions were made in the gangrenous area and the arm placed in a saline bath, the patient thoroughly septic.

This was a case, evidently, in which the ecchymosis deceived the physician who was treating the case and in which a high amputation would probably have saved the life.

CASE 6.—J. C. (permit No. 3395), a trackman, aged 45, entered the hospital July 28, 1909, at 11 a. m., suffering from severe crushing injuries of both feet, produced by falling under a moving freight train. He also had a fracture at the middle of the left leg.

Twenty-four hours after entrance, the limb was amputated about seven inches below the knee-joint by the long posterior and short anterior flap method, with careful ligation of vessels and resection of nerves. The skin-flaps were approximated with interrupted silkworm-gut sutures, with provisions for free drainage. The patient was in bad condition at the time of operation, hypodermoclysis being necessary. Moist dressing was applied.

Within thirty-six hours after admission, the symptoms of sepsis (namely, delirium, nausea, and vomiting) appeared. The patient climbed out of bed, and it was necessary to restrain him. The following morning, signs of gas bacillus infection were very evident, the parts being dark, discolored, distended with gas, bubbles escaping, along with a black, bloody discharge. Blood-culture was positive. The antiseptics used in this case were mercury bichlorid, 1-2,000. The patient died July 30, 1909, at 9:40 p. m., nearly sixty hours after entrance.

CASE 7.—F. T. (permit No. 5626), a laborer, aged 20, entered the hospital, Oct. 4, 1909. He gave a history of being hurt in a street-car accident. He had a crushing injury of the left thigh, was in extreme shock, and his condition did not permit of immediate amputation.

Two days after admission, his general condition had improved somewhat, although sepsis was extreme. The leg was very dark, beginning to become gangrenous. It was distended and full of gas. The patient was unable to stand a general anesthetic and, accordingly, with a long, sharp, amputation knife, the calf muscles were severed at the point of fracture, about four inches below the knee-joint, vessels ligated and moist dressing applied. The patient died Oct. 8, 1909, four days after admission.

Like those in the previous cases, this patient died with all the evidences of a general infection, his case being one of those in which the patient could not have stood a high amputation.

CASE 8.—J. P. (permit No. 1868), aged 26, a driver, entered the hospital June 9, 1910, giving a history of being hurt in a runaway. The history of the accident as obtained later from the patient was that the street was an improved one and was very muddy. Examination revealed three lacerated wounds on the middle third of the right leg, with a compound, comminuted fracture of both bones of the left leg in the lower third, with numerous abrasions and contusions of the left foot. There were a few abrasions on the right leg.

Treatment at this time was directed to cleansing and shaving the limb, followed by an alcohol pack and iodin. The leg was placed on a Cabot splint and 1,500 units of tetanus antitoxin administered.

Some twenty-four hours after patient's admission, the temperature rose, pulse became very rapid and the patient complained of some pain. Examination at this time revealed a dark, spreading inflammation, not sharply circumscribed, and without elevated borders. There was bleb formation, and the leg presented signs of beginning gangrene. It was of a dusky color, or brownish hue, and in view of the fact that the patient's leg had been thoroughly rubbed in the dirty street, with the clinical signs as above, we believed that we were dealing with a gas bacillus infection. Cultures were taken, sent to the laboratory, and the following day were reported positive.

Without waiting for report from the laboratory, it was decided that, in order to give the patient a chance for his life, it would be necessary to do a high amputation at the junction of the lower and middle thirds of the thigh. Under a general ether anesthesia, the operation was performed by the circular cuff method. The wound was closed in layers overlapping the bone and two rubber tubes inserted for drainage. The patient left the table suffering from considerable shock. The wound was irrigated daily with hydrogen peroxid, and a hydrogen peroxid dressing applied. The process reached to the junction of the upper with the middle third of the leg, therefore it was necessary to go above the knee-joint.

The patient was discharged June 22, 1910, having made an uneventful recovery.

CASE 9.—W. B. (permit No. 5877), aged 60, a pipecutter, entered the hospital Oct. 20, 1910, giving a history of having been injured by an elevator. Examination showed the right hand almost entirely torn from the arm at the carpal joint. The skin was torn loose around the entire wrist. All the muscles, tendons and nerves were severed, along with most of the vessels on the anterior surface, only those tendons on the posterior surface being intact. The hand was cold and sensation was abolished. The wound was cleansed and skin flaps loosely approximated in the hope that there might be an establishment of circulation. Pulpification of the hand was great.

When first seen by me two days after admission to the hospital, when the hand was dressed, it was found that the tissues presented an appearance very much like that of a gas bacillus infection. The hand was becoming dark in color; there was a foul-smelling, sweetish odor, with a dark, bloody discharge, and a few gas bubbles. Two hours after this, amputation was performed, the hand beginning to crepitate. The anteroposterior flap method was carried out at the junction of the lower with the middle third of the arm. On the following morning, after the operation, the patient's temperature was normal and he

was doing well. Healing occurred by first intention, patient being discharged November 21, after having remained in the hospital for three weeks preparatory to finding a home.

CASE 10.—G. Y. (permit No. 7853), a laborer, aged 25, entered Dec. 31, 1910. The patient was suffering from a compound fracture of the forearm with laceration and crushing of forearm. There was considerable pulpification.

Temporary treatment was given, but in twenty-one hours gas with a gangrenous process appeared. The forearm was very dark in color and gave off a foul, sweetish odor. There were gas bubbles in the tissues, as shown by crepitation and also by the escape of bubbles. The patient had a high temperature, rapid pulse, was septic and complained of considerable pain.

The patient was informed of his condition on three occasions, it being necessary after thirty-six hours to bring the influence of his relatives to bear on him to obtain consent to operation. It was explained to him, at the time of operation, that the question of saving him was very doubtful on account of the delay.

Under general anesthesia, an anteroposterior flap at the junction of the upper and middle third was made in the usual way. Closure was with interrupted silkworm-gut sutures after irrigating the wound thoroughly with hydrogen peroxid. A rubber tube was inserted in each corner of the flap, and thereafter was daily irrigated with hydrogen peroxid and hydrogen peroxid dressing was applied.

Within twenty-four hours, the patient's temperature had dropped to normal, followed in thirty-eight hours by a rise due to an infection of the wound with a probable staphylococcus infection. All sutures were removed, and hydrogen peroxid and tincture of iodin were freely used. The wound, two weeks after amputation, was clean but required a repair amputation.

In this case, a gas-producing organism was found which in culture media produced gas, but an attempt to segregate it met with failure, although the clinical evidence was unmistakably that of a gas bacillus infection with some contamination with the staphylococcus.

CONCLUSIONS

Early interference, before seventy-two hours, preferably amputation in malignant cases involving extremities, in most cases will mean the saving of life.

Laborers and railroad men are prone to infection, as their wounds are often contaminated with soil.

Infection occurs most frequently from contamination with street dirt, followed by railroad dirt, then elevator dirt, and then intestinal tract discharges. The frequency of street soil infections, I believe, can be explained on ground of contamination with manure. There are two recorded cases in which infection occurred in ischiorectal abscesses, the rarity, it is thought, being due to the fact that these wounds usually are wide open and lined with a layer of granulation tissue, the granulation tissue preventing the free dissection of the gas and the oxygen probably preventing the *B. a. c.* infection.

All wounds contaminated with street or railway dirt should be observed for this infection and treated, if possible, in such a manner as to permit of easy inspection. Hence plaster casts and sealing of wounds should be avoided. Cultures should be made if there is a suspicion of *B. a. c.* infection, and the wound freely opened and treated with hydrogen peroxid or oxygen preparatory to amputation, if necessary. In Case 10, the amputation stump was irrigated through drainage tubes with hydrogen peroxid twice daily for the first two days, although at the time of operation the wound was flooded repeatedly with hydrogen peroxid.

Fall in temperature to normal would seem to indicate the eradication of *B. a. c.* infection, as in Cases 9 and 10.

The disease is only relatively common, as it has occurred at the city hospital on an average of once in about 1,250 surgical cases, and practically always in cases in which there was pulpification of tissues. Since *B. a. c.* infections do not develop in very many or most cases of soil and street contaminated wounds (though often found here), it would seem that pulpification of tissue and injured blood-supply favor *B. a. c.* infection, owing to weak or absent resistance. There is further evidence to this effect, as shown in reported cases with presence of gas bacillus on and in amputation stumps.

Brewer has found that diabetics are prone to infection, and experimentally the *B. a. c.* develop more easily and rapidly in the presence of sugar.

Early diagnosis by definite, clean-cut, clinical pictures, and prompt, radical treatment will materially reduce the death-rate.

Blood-cultures should be made in every case, but treatment should not wait.

I believe that the condition is often unrecognized, and trust that this report will stimulate an interest that will result in more frequent diagnoses of the infection.

AN IMPROVED APPARATUS FOR ESTIMATING THE PRESSURE IN THE CEREBROSPINAL SYSTEM

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Since the introduction by Quincke[1] of an apparatus for estimating the cerebrospinal pressure, there have been numerous criticisms of the mechanics of the instrument and several attempts have been made, either to modify his apparatus, or to introduce a new principle. As devised by Quincke, the apparatus consists of the ordinary puncture needle and trocar, to which is attached a long piece of rubber tubing leading to an S-shaped piece of bent glass. According to the height to which the latter has to be raised the pressure is estimated, the reading being taken from the level of the hilt of the needle to the level of the fluid in the glass tube; this is measured by an independent centimeter scale.

The imperfections in the use of this instrument are the following:

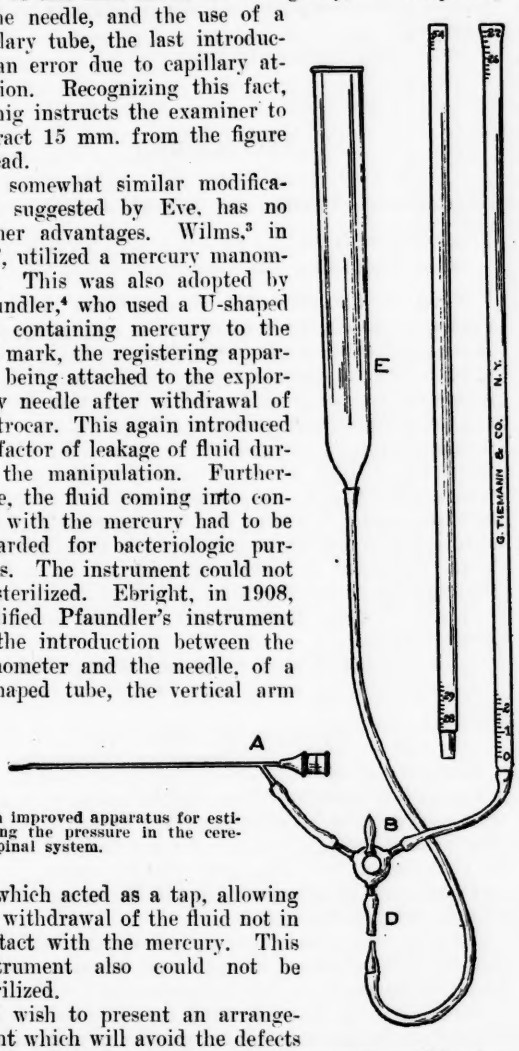
First, between the time when the trocar is withdrawn from the needle and the moment when the rubber tubing is attached to the hilt of the latter there must necessarily be an escape of fluid, even providing that the worker is rapid in his actions and the connections are all firm and watertight. This loss of fluid, which is inevitable, and which may vary from 1 to 5 c.c. when the pressure is high, affects the accuracy of the reading. Secondly, the length of the rubber tubing and its usual large caliber, causes it to act in part as a reservoir, a long loop of this tubing frequently hanging far below the level of the needle. The latter, therefore, often withdraws from the estimation as much as 5 c.c. of fluid. When the pressure is low this interferes materially with the attempt to read intraspinal pressure.

The advantage of the instrument is that it permits a reading to be made before and after withdrawing the fluid, and allows examination of the fluid without dilution with another second inert fluid such as might be used in a manometer.

1. Quincke: Technik der Lumbal Punction, 1902; Deutsch. Klin., 1906, vi, 351.

In 1897, Krönig[2] introduced a modification of the apparatus by inserting into the needle after withdrawing the mandrin, a short L-shaped glass tubing the upper arm of which acted as a scale on which to read the height to which the intraspinal pressure forced the fluid; the horizontal arm was employed to withdraw a specimen for examination or for therapeutic purposes. In addition, he incorporated in the needle a stop-cock, by means of which he could prevent the leakage of fluid while he was attaching his manometer. The disadvantages of this instrument are its rigidity, the complexity of the needle, and the use of a capillary tube, the last introducing an error due to capillary attraction. Recognizing this fact, Krönig instructs the examiner to subtract 15 mm. from the figure as read.

A somewhat similar modification, suggested by Eve, has no further advantages. Wilms,[3] in 1897, utilized a mercury manometer. This was also adopted by Pfaundler,[4] who used a U-shaped tube containing mercury to the zero mark, the registering apparatus being attached to the exploratory needle after withdrawal of the trocar. This again introduced the factor of leakage of fluid during the manipulation. Furthermore, the fluid coming into contact with the mercury had to be discarded for bacteriologic purposes. The instrument could not be sterilized. Ebright, in 1908, modified Pfaundler's instrument by the introduction between the manometer and the needle, of a T-shaped tube, the vertical arm



An improved apparatus for estimating the pressure in the cerebrospinal system.

of which acted as a tap, allowing the withdrawal of the fluid not in contact with the mercury. This instrument also could not be sterilized.

I wish to present an arrangement which will avoid the defects of the Quincke tubing and its several modifications, prevent any leakage of fluid during manipulation, permit a minimum amount of the fluid withdrawn to register the pressure, and facilitate the withdrawal of all the fluid uncontaminated and in an unaltered condition. The principle which Quincke introduced, i. e., that the pressure should be estimated by the height to which the fluid is raised in a vertical tube, is utilized.

The apparatus consists of the following parts: (a) a needle, the hilt of which bears a terminal cap firmly screwed on; at about 2 cm. distant from the posterior end is a small branching arm, the lumen of which is the same as the lumen of the needle proper; (b) a three-way stop-cock made of metal; (c) a graduated piece of heavy glass tubing 30 cm. long with a lumen of 2 mm.; a second tubing of the same length and capacity is used, which has a tapering ground-glass lower end by which it may be fitted into the upper end of the first tube when the pressure is unusually high. The three-way stop-cock is interposed between the graduated glass tubing and the branch arm of the needle, connection being made on each side by a piece of rubber tubing 2 cm. long. The third arm of the stop-cock is used for the withdrawal of the specimen. A blunt trocar accompanies the instrument; if the needle is inserted in the canal without a flow of fluid resulting there is suspicion that the lumen may be blocked by tissue, the cap of the needle may be unscrewed and the trocar inserted to reestablish the patency of the needle. The trocar should only be used for this contingency.

The technic required for the manipulation is as follows:

First, the entire instrument is sterilized by boiling in water.

Second, the needle is attached to the three-way stop-cock, the latter being closed so as to prevent premature escape of fluid and the registering glass tube being disconnected temporarily.

Third, the operator holding the stop-cock in the palm of his hands, grasps needle and performs puncture according to his own way or preference for this maneuver.

Fourth, the point of the needle being felt to lie freely in the spinal canal, the registering glass is now attached to the second arm of the stop-cock by means of its connecting rubber tube; the handle of the stop-cock is turned to the first position, allowing the free escape of the spinal fluid into the registering apparatus.

Fifth, the pressure having been read, the handle of the stop-cock is turned to its second position, allowing the escape of the fluid from the registering tube into the collecting vessel; then turned into its third position allowing the further direct escape of spinal fluid into the collecting vessel. After the proper amount of fluid has been obtained the handle of the stop-cock is turned into its first position and the pressure again estimated. After the final pressure has been read, the needle is withdrawn from the spinal canal. The retained fluid is washed out with running water and the apparatus is resterilized.

A glass funnel and small-bore connecting rubber tubing about 20 inches long is furnished for injection of therapeutic serum or solutions when so desired. The tubing is attached to the third arm of the stop-cock (that used for withdrawing fluid) and the funnel lowered until cerebrospinal fluid replaces the air in the tubing. The injection fluid is then poured into the funnel, the latter raised, and the fluid allowed to enter the canal.

The instrument presents the following advantages:

First, there is no opportunity for accidental escape of fluid.

Second, the apparatus is compact and small, the entire capacity of the registering apparatus being only 60 minims.

Third, the instrument can be thoroughly sterilized.

Fourth, no foreign substance is used to indicate pressure. The registering part is made of heavy glass not easily broken; the stop-cock is of metal, simple and

2. Krönig: Deutsch. med. Wchnschr., 1897.
3. Wilms: München. med. Wchnschr., 1897, p. 55.
4. Pfaundler: Beitr. z. klin. Med. und Chir., xi, 20.

durable; the short rubber connecting parts can be easily replaced when the elasticity is exhausted.

For comparison of the readings with that of a mercury manometer it is necessary only to recall that dividing the result in millimeters by the factor 13.6 will give the equivalent pressure as estimated by a column of mercury.

The reading with this instrument should be comparable to those obtained with the Quincke apparatus. The same principle of physics applying to each.

In a very short series of about twenty-five cases the following readings were taken: Normal seemed to lie between 2 and 6 cm.; incipient tabes dorsalis 10 cm.; multiple sclerosis 17 cm.; suppurative meningitis, from 10 to 30 cm.; tuberculous meningitis, from 30 to 60 cm.

The same regulations that appertain to all lumbar punctures must be observed; it must be remembered that the position of the patient, whether sitting or prone, struggling or crying, is very important in their effects on the cerebrospinal pressure. But as these variations refer in general to all methods of lumbar puncture, it is not necessary to discuss them here.

75 East Eighty-First Street.

ANEURYSM OF THE EXTERNAL PLANTAR ARTERY *

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This case is reported because it is somewhat of a surgical curiosity. In looking up the literature, aneurysm of the external plantar artery is found to have been reported five times.

Masson[1] in 1868, Cutliffe[2] in 1872, Gross[3] in 1874, Johnson[4] in 1874, and Gangitano[5] in 1904 report each a case. There have also been reported a few cases of aneurysm of the dorsalis pedis and of the internal plantar artery. Although the plantar surface of the foot is subjected, perhaps, to more pressure than is any other part of the body, the arteries, by reason of the dense fascia and the arch of the foot, are no more exposed to traumatism than are other arteries of the extremities.

Patient.—C. L. A., a man aged 34, married, was first seen Aug. 6, 1910. He complained of continuous dull pains, worse on walking, in the sole of the right foot. The pain was so severe that he walked with great difficulty with the foot in the equinus position. The trouble had commenced six months before as a slight, aching pain, intermittent, later becoming continuous and increasing. At the time the patient consulted us he was unable to perform his duties, which were those of a traveling salesman. The patient's father died of chronic nephritis at 67; mother, two brothers and two sisters are living and well. His wife and two children are living and apparently healthy. His wife has had two miscarriages. There is no history of cardiac or malignant disease or of tuberculosis. The patient had measles, chicken-pox and typhoid fever in childhood, pneumonia at 18. Concussion of the brain at 31 disabled him for six months. He denied venereal infection.

Physical Examination.—The patient was a well-nourished man apparently aged 35 and weighing about 140 pounds. Aside from moderate arteriosclerosis and a somewhat accentuated aortic second sound, his physical condition except for the present trouble, was good. The arch of the right foot was almost gone, the foot being flat, and on the plantar surface directly beneath the instep, nearer the external side was a round, pulsating tumor 5 cm. in diameter and protruding 2 cm. beyond the surrounding surface. The pulsations were synchronous with the radial pulse and there was a well-marked bruit.

Operation.—Operation was performed at the Methodist Hospital, Aug. 8, 1910. The sac was exposed and found to be spherical in shape and 3 cm. in diameter. The artery on each side of the sac was ligated and the sac removed. The patient made a good recovery and was able to return to his work in four weeks.

1801 Cayuga Street—1616 Spruce Street.

* Read before the Jefferson Clinical Society, Jan. 27, 1911.

1. Masson: Mém. Soc. d. Sc. méd. de Lyons, 1868, vii, 26.
2. Cutliffe: Indian Med. Journal, Calcutta, 1872, vii, 248.
3. Gross, S. D.: Philadelphia Med. Times, 1874, iv, 391.
4. Johnson: Boston Med. and Surg. Jour., 1874, xc, 115.
5. Gangitano: Riforma medica, 1904, xx, 421.

Therapeutics

CARDIAC TONICS OF MINOR IMPORTANCE

ADONIDIN, CONVALLARIA, CACTUS GRANDIFLORUS, SPARTEIN, APOCYNUM CANNABINUM, BARIUM CHLORID

None of the above-named drugs can compare in efficiency or activity with digitalis and strophanthus. While most of them have been shown to have the ability to stimulate the heart to greater contractions, it has not been shown experimentally or clinically that they have any advantages over digitalis in small doses, and as compared with large doses of digitalis they are much inferior. If digitalis or strophanthus does not agree with a patient, and produces undesirable symptoms, the dose is probably too large or too frequent, and the substitution of a weaker drug is not the substitution of a better drug, but is a demonstration of the misuse of the digitalis or strophanthus. There is no good reason why any of these drugs should be official in the next Pharmacopeia.

A description of these drugs and their activities, and the conditions for which they have been used are as follows:

ADONIDINUM. ADONIDIN

Description.—Adonidinum, genitive adonidini, is an active glucosid obtained from *Adonis vernalis* or *Adonis autumnalis* (false hellebore), a plant native of Northern Europe and Asia. This glucosid was isolated, in 1882, by Cervello, of Strasburg, and is an amorphous, inodorous and very bitter substance, soluble in alcohol, very slightly soluble in water.

Local Action.—This drug has no special local action.

Systemic Action.—The action of adonidin has not been very carefully worked out except on the circulatory system. In very large doses it seems to be somewhat irritant to the gastro-intestinal mucous membranes, producing vomiting and diarrhea. Its action on the heart muscle and on the cardiac nerves is similar, though less powerful, to that of digitalis. After a first slight increase of cardiac action it slows the beat, prolongs the diastolic rest, and raises the blood-pressure by causing contraction of the arterioles. Poisonous doses, after the primary slowing of the heart, cause it to beat very rapidly, probably because of paralysis of the vagi. Later the blood-pressure falls and the heart action becomes very slow. The drug acts somewhat as a diuretic, probably on account of the increased blood-pressure.

Action of a Therapeutic Dose or the Primary Physiologic Action.—It slows and strengthens the heart, raises the blood-pressure, and slightly increases the output of

urine; in other words, it has a similar action to that of a physiologic dose of digitalis. The toxic symptoms are practically the same as in digitalis poisoning, and the treatment is the same as for poisoning by that drug.

Therapy.—Adonidin may be used as a substitute for digitalis whenever a cardiac tonic is indicated, but it is not so effectual in its action and cannot restore compensation as does digitalis. Adonidin has been used with bromids in epilepsy. There seems no more reason for its use in epilepsy than for the use of strophanthus. Any cardiac drug may be of marked value when the system is debilitated by bromids.

The contra-indications are the same as those for digitalis.

Administration.—Adonidinum is an expensive, non-official drug. The dose is from 0.01 to 0.02 gram (from $^1/_6$ to $^1/_3$ grain), best given in capsules as the solution is intensely bitter, administered every four or five hours. This drug acts much more quickly than digitalis, and hence could be used as a cardiac tonic in emergencies, but strophanthin is better. This drug probably has no cumulative action.

CONVALLARIA, U. S. P.: LILY OF THE VALLEY

Description.—*Convallaria*, genitive *convallariæ* (*Convallaria majalis*) is a native plant of the United States, Europe and Asia, and is also cultivated for its sweet-smelling flowers. The parts official are the rhizome and the roots which should be collected in mid-summer and dried in the sun. It contains a bitter glucosid, convallamarin, in acrid purgative glucosid, convallarin, and a resin. These active principles were discovered by G. F. Walz and described in 1859. Convallamarin is the principle which acts on the heart, the convallarin acting only as a slight purgative.

Local Action.—This drug has no noticeable local action.

Systemic Action.—The principal action of convallaria, through its constituent convallamarin, is on the circulatory system, and the action on the heart is similar to that of digitalis, though this action is not so sure and not so decided. It raises the blood-pressure somewhat and often acts as a decided diuretic. Whether this diuretic action is due to the improved circulation or to stimulation of the kidneys has not been decided. In non-poisonous doses there is a slight laxative effect but no marked purgative action.

Action of a Therapeutic Dose or the Primary Physiologic Action.—This drug is of doubtful action on account of the varying strength of its official preparation, but the action of a therapeutic dose should be slightly to slow the heart and strengthen its muscular action, to raise the blood-pressure slightly, to act as a mild laxative but not to disturb the stomach or digestion, and to cause a marked increase in the amount of urine.

Toxic Symptoms.—These symptoms would be similar to the symptoms produced by poisonous doses of digitalis, and the treatment would be the same as in poisoning by the latter drug.

Therapy.—The therapeutic use of this drug first began, unprofessionally, in Russia, as a remedy in dropsy, and later investigations gave it a professional standing as an active drug in cardiac debility and as of special value in cardiac edema. Therapeutically, then, it may be tried as a substitute for digitalis or strophanthus when there is valvular disease, a dilated or irregular heart and a tendency to cardiac edema. Though some therapists find the drug of great value in these cases its action is often disappointing, probably from the varying strength of its preparations.

Contra-Indications.—The contra-indications are the same as those of digitalis, and much gastric or bowel irritation should preclude its use.

Official Preparation.—The only official preparation is: Extractum Convallariæ Fluidum, the beginning dose of which is 0.5 c.c. (8 minims).

Unofficial Preparations.—Convallamarin occurs as an amorphous powder, yellowish in color and of bitter taste, soluble in water and alcohol. The dose is 0.05 gram ($^3/_4$ of a grain) four or five times in twenty-four hours. Hypodermatically the dose would be about 0.02 gram ($^1/_3$ of a grain). The drug in emergencies, however, is greatly inferior to strophanthin. Convallarin occurs as a yellowish, amorphous powder, of acrid taste, insoluble in water, soluble in alcohol. It has no action on the heart, but may act as a laxative. The dose is about 0.2 gram (3 grains).

Administration.—The dose of convallaria should be pushed to some slowing of the heart and noticeable increase in the urine unless purgation should occur. There seems to be no cumulative action from this drug.

This drug could well be deleted from the Pharmacopeia.

CACTUS: NIGHT-BLOOMING CEREUS

Description.—*Cactus*, genitive *cacti* (*Cactus grandiflorus*) is a native plant of tropical America, and is cultivated for its beautiful flowers. It is not official, and no active principle of the plant has been obtained. A fluidextract and a tincture have been used medicinally. These preparations have been made from the fresh stalks, which contain an acrid juice.

Local Action.—The expressed juice of this plant is irritant and can produce vesicles and pustules on the skin, and when taken in concentrated form it causes pain, vomiting, and diarrhea.

Systemic Action.—Rubini, in 1868, was perhaps the first to state that a tincture of this plant was of advantage in cardiac debility. This has been reiterated clinically at stated intervals ever since. It has been clinically stated that the drug would increase the strength of the cardiac contractions and regulate the rhythm. It has also been stated that it would raise the blood-pressure. It has been stated experimentally that it acts on the intracardiac ganglia, and also that it is a stimulant to the vasomotor center. On the other hand, repeated recent careful experimentations with the best preparations obtainable, and that could be made from the crude drug, and experiments with so-called active principles have shown absolutely no physiologic activity whatever, and no action on the heart or blood-vessels. Favorable reports of circulatory activity of this drug found experimentally have probably been based on preparations of other allied plants, or contaminations. The drug and its preparations are therefore pharmacologically inert, and should not receive official recognition.

Toxic Symptoms.—An over-dose of a concentrated preparation of cactus would undoubtedly cause vomiting and other symptoms of gastro-intestinal irritation, and the treatment would be that of a gastro-intestinal irritant.

Therapy.—There is no reason or excuse for expecting any action on the circulation or any other part of the body from preparations of this plant. Any results obtained from the administration of its preparations are due to the associated action of something else administered or done at the same time. If a strong alcoholic

preparation is used, the results obtained may be attributed to the action of the alcohol. The results obtained from the administration of preparations of this plant are purely psychical, or show that the digitalis, which was given to the patient before the cactus was administered, was not indicated.

This is a truth that cannot be too frequently repeated. A weak and useless preparation is substituted for a strong and active one; the patient or his symptoms improve; the results are recorded as activities of the useless, inert preparation, when the improvement is really the removal of the active drug which he did not need.

Also, there is the never absent psychical effect on the patient of a change of drug or the use of something decidedly different or unusual.

It should be accepted as an axiom that a drug that has no action on animals has no action on man.

SPARTEINÆ SULPHAS, U. S. P.: SPARTEIN SULPHATE

Description.—Spartein is an alkaloid obtained from *Scoparius* (broom). It is a colorless, oily, unstable liquid of intensely bitter taste, alkaline reaction, and anilin-like odor. Its neutral sulphate is the only preparation official, and is like all sulphates of the alkaloids, bitter and soluble.

Action on the Circulatory System.—The evidence of investigators and clinicians in regard to the action of spartein is so conflicting that it must be concluded that the actual action and utility of this drug is not established. It seems to be pretty thoroughly proved that spartein is a depressant to the nervous system and in full doses weakens the heart. There is, if any, only a short-lived rise in blood-pressure from spartein and in full doses the blood-pressure is diminished. It is depressant to the heart muscle, and in large doses paralyzes the peripheral endings of the pneumogastric nerves allowing the heart to become more rapid. Small doses, by stimulating the pneumogastric nerve, can prolong the diastole of the heart, and in certain cases may quiet and steady an irregular heart.

Action of a Therapeutic Dose or the Primary Physiologic Action.—The ordinary action from therapeutic doses of this drug should slightly slow the heart, regulate its rhythm, prevent its nervous irritability, slightly diminish the pulse tension, and moderately increase the output of urine.

Toxic Symptoms.—This drug causes symptoms of depression and paralysis similar to that produced by conium, and the treatment of poisoning would be the same as for the latter drug.

Therapy.—This drug is not a substitute for digitalis and does not act as does digitalis. The indications for its use are irregularity and nervous irritability of the heart, especially when conjoined with general nervousness. Spartein has been used in asthma, and it has seemed of advantage in disturbed cardiac action when combined with arteriosclerosis and chronic interstitial nephritis. Nitroglycerin and iodids, however, are safer and act better. It is not a diuretic. It is the scopalin of the broom plant that is diuretic.

Contra-Indications. — These are muscular or fatty degeneration of the heart, low pulse tension, dilatation of the heart; or acute cardiac weakness should prohibit the use of this drug.

Administration. — The only official preparation is sparteinæ sulphas, and the beginning dose is 0.02 or 0.03 gram (⅓ or ½ grain) given every six or eight hours, in solution or in capsule. The action of the drug is rapid, occurring in from 20 to 40 minutes.

There seems no good therapeutic reason for recognizing this drug in the revised Pharmacopeia.

APOCYNUM, U. S. P.: CANADIAN HEMP

Description.—*Apocynum*, genitive *apocyni* (*Apocynum cannabinum*). The part official is the rhizome. This plant should not be confused with *Apocynum androsaemifolium*, as the latter drug has properties different from the official drug. Preparations are probably, however, often made from the wrong apocynum, consequently the results are different. A non-glucosidal, crystalline principle has been isolated named apocynin.

Local Action.—The drug has no external action, but is an irritant to mucous membranes and readily causes vomiting, purging, and severe gastro-intestinal irritation.

Systemic Action.—This drug has long been used in dropsical conditions, especially in cardiac edema. It has also been used in ascites, and in hepatic cirrhosis with consequent disturbance of the circulation and edema of the lower part of the body and lower extremities. Good preparations from true *Apocynum cannabinum* have been shown to raise the blood-pressure and stimulate the cardiac muscle to stronger contraction. The diuresis caused by apocynum is doubtless more or less due to the improved circulation, and the diuresis is similar to that caused by digitalis. The pulse is slowed by stimulation of the vagus nerves, such action being similar to that of digitalis. Whether it has a specific stimulating action on the kidneys, causing increased secretory and excretory activity besides that caused by improved circulation, has not been determined. While its action has been noted clinically to be satisfactory, it is so frequently irritant to the stomach that for this reason its utility is impaired.

Action of a Therapeutic Dose or the Primary Physiologic Action.—The action of this drug is uncertain and the dose is uncertain, depending on the activity of the preparation procured. The desired and expected action would be to slow the pulse, to strengthen the heart, to raise the blood-pressure, and to increase the output of urine. Undesirable action is to cause gastric irritation, nausea and vomiting.

Toxic Symptoms.—These would be the same as would be caused by a gastro-intestinal irritant. By administration by the mouth it has not been shown that this drug could seriously injure the heart. Large doses would doubtless too rapidly cause vomiting to allow systemic poisoning.

Therapy.—Apocynum has been repeatedly reported clinically to be of value in general anasarca and in ascites. If there is cardiac defect its action and efficiency certainly cannot be compared to that of digitalis. In cirrhosis of the liver it is an undetermined question whether it would be any more valuable than other diuretics. When the drug has been pushed it has been noted that some congestion of the kidneys has been caused. It would be a question, when such kidney congestion occurs, whether it is not due to other causes than the drug.

Contra-Indications.—The contra-indications are gastro-intestinal irritation, and especially a tendency to nausea and vomiting.

Official Preparation.—The only official preparation is Fluidextractum apocyni; dose 1 c.c. (15 minims). The powdered drug itself may be administered, if desired, in

dose of 1 gram (15 grains). Administration of the crude drug, however, would be senseless, if a reliable fluidextract were available.

Unofficial Preparations.—Apocynin may be obtained both as the crystals and in an amorphous form. The crystals are white. The amorphous form occurs as a white or yellowish-white powder, and contains a resin. Both are soluble in alcohol. A tincture of apocynum may be obtained, the dose of which would be about 1 or 2 c.c. (15 to 30 minims).

Apocynum androsaemifolium (dogbane), sometimes called the wild or mild ipecac, has been used in chronic constipation, but it is irritant. The dose of the fluidextract is about 1 c.c. (15 minims).

Administration.—The best preparation is undoubtedly the fluidextract, but the activity of this drug and preparations, as above stated, is uncertain. The only excuse for its use is as a diuretic in dropsy. The drug has been used as an emetic, but such use is inexcusable. Other emetics are better and more certain.

It would be well to omit this drug from the Pharmacopeia unless it can be assured that the *Apocynum cannabinum* is the only apocynum used and that there can be some standard of activity. It may become a useful drug, but it cannot be depended on at present, and doubtful drugs should not be certified to in the revised Pharmacopeia.

BARII CHLORIDUM: BARIUM CHLORID

Description.—Barium chlorid occurs in colorless, translucent crystals which are very soluble in water and have a salty, bitter, and decidedly astringent taste.

Local Action.—The soluble salts of barium do not irritate the skin, but are decidedly irritant to mucous membranes and therefore will cause vomiting and purging in concentrated solutions.

Systemic Action.—Barium is one of the most poisonous of the alkaline earths. The salts are absorbed rather slowly from the stomach and intestine and after prolonged administration may be deposited and stored up in the bones. After absorption the chlorid of barium has a decided action on the circulatory system. It stimulates the cardiac muscle to more energetic contraction which becomes with poisonous doses a tetanic contraction, the heart stopping in systole. The blood-pressure is raised rapidly not only from the increased cardiac action, but principally from the contraction of the muscular coats of the arterioles. This action is largely local as dilatation of these vessels does not occur after the spinal cord is cut. The heart is slowed in its action, but whether this slowing is entirely due to the increased resistance offered by the contracted blood-vessels, or due also to stimulation of the pneumogastric nerves has not been decided.

In mammals, absorption of poisonous doses of the barium salts will cause tonic and clonic spasms, showing that this metal is decidedly irritant to the spinal cord and medulla oblongata. In fatal poisoning there is paralysis of the central nervous system. The pupils are sometimes dilated by the action of large doses. Barium increases the contractile power of the muscles enormously, resembling the action in this respect of veratrin. There seems to be no special action on the glands of the body, except that it can produce salivation, like some other metals, and the bronchial secretion may be increased.

Barium chlorid is excreted both in the urine and into the intestines.

Action of a Therapeutic Dose or the Primary Physiologic Action.—An active dose of barium chlorid produces a slight slowing of the heart, an increase in the strength of the cardiac contractions, and a decided increase in the arterial tension. Other symptoms or signs of physiologic action would seem to tend toward the action of too large a dose.

Toxic Symptoms.—Unless the solution is very dilute there will be the symptoms of gastro-intestinal irritation and erosion, which means thirst, vomiting, purging, pain, cardiac stimulation, soon followed by more or less symptoms of shock, with convulsions and dilated pupils, the latter probably due to stimulation of the sympathetic nerve. Before death the bladder also becomes very irritable. The final demise might be by coma or by sudden stoppage of the heart in systole. As little as 0.15 gram (2½ grains) can cause death.

Treatment of Poisoning.—The chemical antidote is any soluble sulphate, as magnesium or sodium sulphate, in large dose, this forming barium sulphate which is practically insoluble. The other treatment would be that for any other gastro-intestinal irritant, and some drug to quiet nervous irritation, as bromids and chloral. Nitroglycerin or aconite might be good treatment to overcome contraction of the blood-vessels and the irritations of the cardiac muscle.

Therapy.—Clinicians differ largely in their opinion of the value of barium chlorid in cardiac debility, but a sufficient number of satisfactory cases have been reported to indicate that barium chlorid may be of value when there is weakness of the ventricles from valvular disease, and in acute dilatation. It has been used to aid the circulation and better the local condition in varicose veins. Its power to stimulate the smooth muscle fiber has caused it to be used in paresis of the intestines and in paralyzed conditions of the bladder. Barium chlorid sometimes slows the heart and improves the circulation in Graves' thyroid disease.

Contra-Indications.—In conditions of high blood-pressure, or atheroma, or nervous irritability, or where there was acute inflammation of the brain or spinal cord this drug would be contra-indicated.

Administration.—Barii chloridum is not official. The dose is about 0.02 gram (⅓ of a grain), best given in tablets or in capsules, after meals.

There is no sufficient reason for recognizing this salt in the revised Pharmacopeia.

REMARKS

It can almost be guaranteed that there will be no increase in the number of deaths from arterial, cardiac, renal, and hepatic disease if the above drugs (adonidin, convallaria, cactus grandiflorus, spartein, apocynum cannabinum, and barium chlorid) are not recognized in the revised Pharmacopeia.

1. They are all inferior to digitalis and strophanthus which they are said to, and in some instances do, mimic pharmacologically and therapeutically.

2. They are much more uncertain in their action than digitalis and strophanthus.

3. Of all drugs to be officialized, inferior cardiac drugs should be the last. It is a dangerous thing to give standard and standing to a heart tonic that is unworthy, or to give the prescriber a sense of false security as to the therapeutic usefulness of a drug by the backing of fifty picked men, and such backing is the physician's interpretation of the Pharmacopeia.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

535 DEARBORN AVENUE . . . CHICAGO, ILL.

Cable Address . . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

[*For other information see second page following reading matter*]

SATURDAY, APRIL 1, 1911

COMPRESSED-AIR ILLNESS AND ITS PREVENTION

In the evolution of industry, which more than anything else characterizes our present age, preventive medicine is assuming greater and greater importance; and in no special province is this truer than in the fields of engineering, where not only the problems of tropical sanitation, but the details of more ordinary undertakings, are being subjected to medical supervision. Embodied in a report to the governor of Illinois by a Commission on Occupational Diseases,[1] is a discussion by Bassoe of caisson disease, which well illustrates this phase of modern medicine. Although the occurrence of compressed-air disease has long been known, the increasing frequency of work that requires continued use of high air pressure makes this an important industrial disease, and Bassoe's report on its occurrence in Illinois, which includes a summary of our present knowledge, is well calculated to serve as a basis for its better control.

For a theoretical study of the peculiarities of caisson disease, we are chiefly indebted to work conducted under the auspices of the British admiralty by Boycott, Damant and Haldane,[2] who were able to demonstrate these practical points: first, that it is the nitrogen of atmospheric air alone that plays an important part in the production of the disease; second, that increased exposure to high pressure gives added risk up to about five hours for man, at which time saturation of the body with nitrogen is practically complete; third, that it is rare, if ever, that symptoms of caisson disease occur under an excess of pressure of 1.25 atmospheres, however long the exposure; fourth, that death is due nearly always either to pulmonary gas embolism, or to blockage of vessels in the spinal cord by gas. Since the excess gas in the tissues does injury solely by its sudden increase in volume on removal of pressure, and since the body can tolerate a sudden decrease in pressure of from 2.25 times normal to normal, they point out that it is safe to decompress from any stage whatever by successive reduction of one-half at a time, thus, by Boyle's law, keeping the volume of liberated gas within the limits of safety. This type of decompression they designate as the "stage" method, as contrasted to the more usual practice of a slow uniform rate of reduction.

That the adoption of such a precautionary measure would almost completely obviate danger in physically sound individuals is shown by the experience of the workers in the East River tunnel at New York, as reported by Japp.[3] Here it was found that by the use of stage decompression, associated with muscular exercise (walking), danger was practically eliminated for seasoned workers.

Such a record, where 330 men were employed for thirty-six days, stands in striking contrast to statistics gathered before the use of preventive steps. Thus, to cite a few American experiences only, there were 119 cases, with fourteen deaths, among 600 men employed on the St. Louis bridge, and on the construction of the first Hudson tunnel there were, before the introduction of a "medical lock," twelve deaths among the forty-five or fifty men employed. Careful search appears to show that the disease is much more frequent than imagined, as is shown by Bassoe's ability to collect 161 previously unreported cases in Illinois, where, aside from the St. Louis bridge cases just noted, he was able to find previous references to only three cases.

In regard to the necessity for special legislation to maintain proper safeguards, it has been urged that the common law principle of holding contractors and corporations responsible for preventable injury to employees should suffice. But that this does not do so, at present at least, is decisively shown by the frequency with which the disease occurs.

1. An editorial on other diseases mentioned in this report appeared in THE JOURNAL, March 25.
2. Jour. of Hyg., 1908, viii, 342.
3. Tr. Am. Soc. Civil Engineers, 1909, lxv, 1.

SEX INSTRUCTION IN THE SCHOOLS

At the recent annual conference of the American School Hygiene Association a paper was read by Dr. Charles W. Eliot, ex-president of Harvard University, on school instruction in hygiene.[1] Dr. Eliot devotes considerable space to the problem of education in sexual matters, coming to the conclusion that under present conditions it is desirable that such instruction should be given in the schools. The objection that the subject is an unclean one and unsuitable for such public discussion he answers by pointing to the disastrous results that have obtained in the past from allowing this objection to govern our policy. Another objection is that the subject is such a sacred one that it can properly be discussed with children by their parents only. To this Dr. Eliot replies that, while the instruction of children in this subject by parents is most desirable when possible, a great majority of parents possess neither the necessary knowledge nor the power of expression to instruct their children properly on this subject.

The general outline for such a scheme of teaching consists of a prolonged course of natural history, begin-

1. Survey, Feb 11, 1911, p. 803.

ning early with botany and progressing to an elementary consideration of zoology, using every possible means of illustration, both indoors and out. Children should be thoroughly acquainted through such means with the principles of the various modes of transmitting life "before any sex emotions begin to stir in them." Later the course should include physiology and should teach something of the causes of disease, by no means omitting, though not unduly emphasizing, the venereal affections. One of the dangers to be avoided in such instruction, as we have remarked before,[2] is the placing of disproportionate stress on the negative side of the subject.

The plan outlined is not a new one, but the fact that it emanates from so distinguished an authority in educational matters entitles it to fresh consideration. No one competent to judge the question will attempt to refute Dr. Eliot's two fundamental propositions: the evils which result from the "world-old conspiracy of silence," and the unfitness—at least, the unreadiness— of a large proportion of parents to instruct their children in sex hygiene. To admit these two facts, however, will scarcely be, for many perplexed educators, to see the way clear to the introduction of the subject in the public schools. From the published abstract of Dr. Eliot's paper, we are unable to judge of the consideration which he gave to the not inconsiderable amount of pioneer work which must first be done. It may be that the practical difficulties which loom large to those working at the bottom of the educational structure dwindle in perspective when viewed from the top.

Parents who are unfit to give instruction to their children cannot therefore be regarded as negligible factors in the educational scheme. It would be rash to attempt to instruct children in the fundamental facts of life without first soberly and tactfully educating their parents, carefully avoiding undue shock to prejudice and unnecessary affront to custom. No one engaged in this task can afford to forget that at present the unvarying decent concealment or avoidance of certain subjects almost usurps the place of morality in the esteem of many people, both the overdainty and ultrarefined on the one hand and the densely ignorant on the other. It will not do for the school to disturb in the minds of children ideals still respected in their homes. The conflict of authority that is sure to result will be detrimental to the influence of both school and home; but the school will suffer most, and deservedly.

Here the cooperation of the family physician will be of the greatest value. The physician may not often have the opportunity of instructing children and young people; indeed, many physicians have no special aptitude for the task. The opportunity of enlightening the older members of a family, however, must often come to every general practitioner, and he has only to use it judiciously to accomplish much good, since on these matters advice which would not be tolerated from a layman will generally be received with respect from a physician.

The need for more widely diffused knowledge of this nature is so great that the experiment of introducing the subject in the public schools seems to be urgently demanded, though there is no need to forget that it is an experiment. It would be foolish to regard the difficulties in the way as insuperable; it would be equally unwise to minimize them. While so much of method remains to be worked out, it would not be prudent to demand work along this line from any educators except those best qualified by wisdom, experience and the confidence of the communities in which they labor. We hope that some of these may before long produce results that will justify others in following their lead.

2. Sex and the Instruction of the Young, THE JOURNAL A. M. A., March 11, 1911, p. 746.

THE LOCKED DOOR

Once more the drowsy conscience of the country has been shocked broad awake—for a moment—by horror. One hundred and forty-one human beings, most of them women and young girls, have met a frightful death through the indifference or greed—or both—which controlled their fates. What gives added poignancy to the ghastly tale is the fact that we knew it all before. The "fireproof building," packed with tinder and human fuel—the inadequate fire-escapes—the locked doors, piled high with dead—every detail of the tragedy has been rehearsed over and over again; the stage is set even now in hundreds of places for its repetition. It is said that the Asch building, where this fire broke out, is only one out of many in Greater New York where such a catastrophe might have occurred; that New York is not unique in this respect, scores of cities in this country can bear shamed and sorrowing witness.

It is not worth while to anticipate the dreary and wellnigh futile task of the authorities in "fixing the blame." We cannot, however, evade the task of pointing out at least one of the lessons which by now ought to be writ large in the memory of every conscientious citizen—the lesson of the locked door. It will be remembered, by the way, that the Triangle Shirtwaist Company (the establishment affected by the recent fire) was the concern in which the New York shirtwaist-makers' strike began, something over a year ago. This holocaust writes a grim commentary on the demands of the workers for better living conditions; the locked door fitly symbolizes the attitude of employers of this class.

To the public's demands to know whether the health and welfare of employees are endangered by lack of light and air, exposure to infection, excessive hours of work, unprotected and dangerous machinery, wages insufficient for a proper standard of living, such employers have but one answer, however they may phrase it: "This is a private business." It is the slam of a door and the turn of a key; it means that, in the estimation of the proprietors, a man's business is his castle. Laws regulat-

ing the hygienic conditions of industry are, from this point of view, an unjustifiable interference with private enterprise.

Our modern industrial organization permits a "captain of industry" to hold the lives of hundreds and thousands in the hollow of a callous and unsteady hand. Even barring out such spectacular calamities as the recent fire in the Triangle Shirtwaist Company's premises, the moral and physical well-being—the very existence—of those who earn their bread by their day's labor is more affected by the rules and conditions established by their employers than it is by the whole machinery of civil government outside. Can we permit such an *imperium in imperio*, ruled for private profit, to be carried on behind locked doors, figurative or literal?

In the present instance, doubtless, some little good will be accomplished if the guilty individuals receive punishment a tithe as prompt and exemplary as that meted out to the irresponsible wastrel who stabs his fellow in a drunken brawl; but this is scarcely to be expected. What is most to be desired is that we shall all realize our share in the joint responsibility for such disasters and the conditions that lead up to them. He who looks on unprotesting is guilty in that degree.

THE FETISH OF PRECEDENT

Inasmuch as the question of employers' liability for injury to workmen is in certain of its aspects a problem of preventive medicine, it is of interest to note the recent decision of a New York court declaring unconstitutional a law of that state providing for the compensation of workmen injured in the line of their duty.

The main feature of the act was that it required employers of labor in certain dangerous occupations, such as bridge-building, operation of elevators, work on scaffolds, work on electric wires, working with explosives, on railroads, tunnels, and work carried on under compressed air, to compensate their employees for any injury occurring during the course of the work, whether or not such injury occurred through the negligence of the workmen. The considerations which justify disregard of the employee's negligence are, first, the difficulty—the practical impossibility—of holding the employer to any responsibility if the employee must first be cleared of all blame, and, second, the fact that, in the main, the negligence of the employee is within the control of the employer. To the working man dependent on his daily labor, the more or less remote chance of losing his life does not for a moment balance the immediate certainty of losing his job. The most cruel injustice of the doctrine of contributory negligence lies in the opportunity it gives to the employer, while tacitly requiring the worker to take a risk, to evade all responsibility for its consequences because it is impossible to prove that the employee did not take this risk on his own initiative. As soon as it is made unprofitable to employ working men who are negligent of their own safety, such negligence will cease to be an appreciable factor in industrial accidents.

The New York law was modeled on the British workmen's compensation act of 1897, which has since been extended to cover every kind of occupational injury. This law has been upheld by the courts of Great Britain and has been found to work to the satisfaction of both employers and employees, in that country.

The New York court admits the strength of the economic and sociologic arguments adduced in support of the statute, but holds that "under our form of government courts must regard all economic, philosophic and moral theories, however attractive and desirable they may be, as subordinate to the primary question whether they can be molded into statutes without infringing on the letter or spirit of our written constitutions." The court points out that the law abrogates the "fellow servant" doctrine, and also the rule in regard to "contributory negligence," two venerated precedents that were eagerly seized on by the courts of this country almost as soon as they were enunciated, and have been worshipped and invoked ever since. It is admitted, indeed, that the legislature has the right to abolish both of them. The New York court, however, sweeps aside British precedent, sound common sense, the admitted power and expressed will of the legislature, and falls back on that other hallowed fetish frequently invoked by corporations and trusts when their special privileges and profits are threatened, the deprivation of property without due process of law, etc. No matter, therefore, under what stress of necessity a man engages in a hazardous employment, wherein often even the most elementary provisions for safety are disregarded by the employer—no matter how much it may cost the general public to care for an injured employee and his dependents—the court decides that the sacred right of property must not be invaded. As for the public, if it ever had any rights, these, evidently, have long since vanished, swallowed up in the tortuous mazes of legal precedent.

On the very heels of this decision comes an instance in the same state of the need and justice of such a law. The terrible fire in a factory in New York City wherein over a hundred lives were lost, and many persons injured, illustrates how the public pays for the indifference of employers to the safety of their people. In defiance of state laws and city ordinances the proprietors of this factory and the owner of the building had neglected to provide adequate exits or means of escape from their building, although it is asserted that the stock and machinery were heavily insured against fire loss. This fire has already cost the city of New York thousands of dollars for the care of the dead and injured, and the ultimate expense to the public, taking into account not only the killed and maimed, but those dependent on them, no reckoning can compute.

It is only too plain that, until it is made unprofitable for employers to despoil their laborers of life and strength and to throw the human refuse on the scrap-heap, to be disposed of at public expense, the inhuman and senseless waste will go on. The blood of the worker is part of the cost of production; but private industry will not pay that cost if it can be shifted to the general public.

To those who look ahead, the decision of the New York court is matter for regret because, but not solely because, it perpetuates an ancient wrong. It shows a failure of the courts to understand the age in which they are living. "What we know as men," said the Illinois Supreme Court not long ago, "we cannot profess to be ignorant of as judges." We commend this fine saying to the consideration of courts elsewhere. Too often the courts have seemed entirely to ignore, either as men or as judges, facts which are patent to the man on the street; too often they have seemed to seek precedents to justify setting at naught the will of the people, expressed through the legislatures. It is not radicals, but conservatives, who have most reason to regret this, for it presages a day of reckoning in which precedents shall go for very little.

Current Comment

HYGIENE IN THE ARMY ON THE BORDER

We recently commented on the mobilization of a considerable military force in Texas for maneuver purposes, and suggested that this would give an opportunity to the Medical Department of the Army to show what progress had been made since 1898 in army sanitation and hygiene. Though the facts were not then at hand, it was suggested that undoubtedly vast improvement had been made in this respect. A correspondent in a New York daily paper has raised the same question and inquired what was being done in sanitary matters to prevent a repetition of the experiences of the army in 1898. Under the authority of the War Department, a reply was made to this inquiry, setting forth what had been done in preparing for the maneuvers in Texas. It was stated that at the time of issuing the order for the mobilization of the army the Army Medical School was ready to supply, for inoculating the troops in the field, an antityphoid serum which had been previously tested by 20,000 inoculations in the regular army, and had proved its efficiency. The inoculations are now being applied to the entire force in the field. It is asserted by the War Department that this is a feat of preventive medicine which for magnitude and promptness of execution is unique in military history. Among other measures, a carefully tested system of the disposal of wastes has been put into operation, which will prevent camp epidemics and defeat the dangerous activities of the common fly. Sanitary squads of hospital corps men, under competent medical supervision, have been provided to secure cleanliness of the camps. Trained sanitary inspectors and field laboratories are now provided and the sanitary personnel, while somewhat short in numbers, is expected to be filled up in case of necessity from the Medical Reserve Corps and by the enlistment of Hospital Corps volunteers. The plans for temporary hospitals are drawn and specifications are printed and ready for the builder. The reorganized Red Cross, with its enrolled trained nurses, also stands behind the reorganized medical service. As illustrating the preparedness of the department for service, it is said that the hospital equipment and medical supplies for the volunteered force left the field depots in Washington and St. Louis while the troops were being entrained and arrived in San Antonio at practically the same time as the troops. It is satisfactory to realize that ten times the force could have been supplied and equipped with equal promptness. Although the Army has been in the past, and even now is, more or less handicapped by the reluctance of Congress to provide for a sufficient medical personnel and equipment, yet present conditions indicate that the Medical Department has evolved an efficient organization and is prepared to cope with actual war conditions, according to modern ideas, in a highly efficient manner. The experience in Texas will no doubt prove that our medical forces and organization are equal to those of any other nation.

MAIL-ORDER MEDICAL SPECIALISTS

In one of his articles on quackery, Mr. Samuel Hopkins Adams likened the mail-order medical faker to a man who would offer to mend chimneys by mail. The comparison is a homely one, but apt. Diagnosing and prescribing by mail, as carried on by the typical medical mail-order house, is a fraud *per se*. As a corollary of this axiom, it follows that any person who offers, for monetary or other consideration, to prescribe or treat on the mail-order plan is a swindler and a cheat. Yet, there are in this country hundreds, possibly thousands, of concerns that are doing a flourishing business in this line of work. A few of these THE JOURNAL has exposed, and a few more it expects to expose. But, in the very nature of the case, those which we are able to investigate are but a drop in the bucket of quackery. In the "Propaganda for Reform" department of this issue there is an article dealing with a mail-order medical fake calling itself the Dr. Bertha C. Day Company. Physicians will find very little in this article with which they are not already familiar, but they will find a great deal with which their patients are unfamiliar. Few physicians realize the degree of ignorance that exists among the public generally, regarding mail-order medical quacks. Because the fraud that characterizes these concerns is so perfectly evident to the physician, he is unable to comprehend how it is possible for presumably intelligent laymen to be misled by the specious promises of the mail-order quack. The fortunes that have been, and are being, made by the unscrupulous individuals who conduct such concerns are in themselves sufficient to prove that the public is still easily fooled. The purpose of articles, such as the one in this issue, is to enable physicians to place in the hands of their patients such information as will convince the most gullible of the fraud that is inherent to quackery. The Bertha C. Day article, together with a number of similar articles,

will be reprinted in pamphlet form and sold at a merely nominal price. We know of few things on which the public needs enlightenment more than the subjects of quackery and the nostrum evil; we know of no better way of bringing about this enlightenment than by the wide dissemination of articles such as these. It is to be hoped that physicians will realize their responsibilities and opportunities in this matter.

THE RISKS THAT PHYSICIANS RUN

During the past week three deaths have been reported of resident physicians in hospitals, from diseases contracted from patients whom they were attending. Two of these deaths were from cerebrospinal meningitis brought to New York City by passengers from Greece; the third—in Chicago—was from scarlet fever. The records of the dead in the medical profession are full of similar instances, not only in cases of young interns, but of busy family practitioners, who have faced death fearlessly in their professional work and have gone to death as fearlessly. In exceptional instances, as in those just mentioned, the work which brought such men to their death has been done in the public eye, and they have consequently received the martyr's meed of lament and eulogy. Seldom or never has the spectacular element been a motive for the deed. Although it is impossible for the world to pay fitting individual tribute to all such heroes, we may regard the honors paid to a few as given to representatives of a heroic class. All have done their duty and deserve the same honors that are paid to soldiers who die in line of duty.

A SAD SEQUEL TO CONSCIENTIOUS WORK

In contrast to the situation referred to above, the physician may find that his duty brings him into direct conflict with the wishes of the public. He may be called on to exert considerable strength of character in order not to fail in any respect in his duty. Especially is this so when not only his own pleasure and comfort are concerned, but the happiness and even the lives of his family. Such a case was recently described[1] in these columns. The report of a case of typhoid by Dr. Franz, an Austrian district physician, caused a change of plans by the authorities so that military maneuvers were not held, and thus the villagers were deprived of pleasure and profit. A boycott and persecution followed. The physician could not obtain a nurse for his wife during her confinement. No one in the village would sell him food; he had to get meat and vegetables by mail.[2] His windows were broken about once a week. The ordeal was so severe and the resultant anxieties so wearing as ultimately to bring on the physician's death. The government has taken the matter in hand most actively and will severely punish the guilty persons and enforce the payment of money damages to the family of the dead physician. As detailed by our Vienna correspondent, the case is an extreme one, but it merely illustrates the position in which a physician may be placed when the demands of public health run counter to the temporary desires of the community. The process of educating the public all over our own country on the subject of public health—what it means and what it requires—is gradually going on. It requires time; it requires patience; it requires far-sight, but no one can deny that advance is being made. The period on which we have entered has been called the "Public Health Era" and physicians of to-day are most fortunate in the opportunities they have in not only witnessing it, but in being active factors.

1. THE JOURNAL A. M. A., Feb. 4, 1911, p. 362.
2. Note the convenience of the parcels post. There is one bright side to this picture. The doctor could get meat and vegetables by mail! In the United States—thanks to the express companies and their control of our legislative bodies—the parcels post is too limited in its possibilities; but that is another story.

PRELIMINARY EDUCATION SHOULD ACTUALLY BE PRELIMINARY

At the recent meeting of the Association of American Medical Colleges an important step in advance was taken in regard to its requirement of preliminary education. An amendment to the constitution was adopted providing that after Jan. 1, 1912, all colleges holding membership in the association shall require of every student admitted at least a completed four-year high-school course or its equivalent, no "conditions" to be permitted. Heretofore, students might be admitted conditioned in as many as six points or three units of high-school work. Since the entire four-year high-school course consists of only thirty points, or fifteen units, therefore, the constitution permitted the colleges to accept students conditioned in 80 per cent. of a year's work in entrance subjects, which, according to another clause of the constitution, were to be removed before the student began work "in the second year of his medical course." Not only was a student thus conditioned allowed to begin the difficult study of medicine without the necessary preliminary education, but he was given the Herculean task of completing nearly two years of work in one. The instance is exceedingly rare in which a student can honestly and satisfactorily make up three units of entrance conditions and at the same time obtain satisfactory grades in the first-year studies of the modern medical course, and the better colleges, recognizing that fact, have refused to admit students so heavily conditioned. In only too many of the institutions, however, such conditions are never removed or else easy makeshift methods are provided, the whole arrangement being used by many colleges as a pretense of living up to a fixed standard. By such institutions, any fixed requirement will be stretched to the farthest limit permitted by the association. Any entrance condition, the removal of which is actually required by the college, is an added handicap to the student whose burdens in the modern medical course are already becoming too heavy. This is the chief reason why a better preliminary education is necessary. To be of any practical value, however, such education must be completed before the student is admitted to the medical college. In other words, preliminary education should *be* preliminary. The amendment adopted by the association is therefore an important step in advance.

PROPORTION OF PHYSICIANS TO POPULATION IN THE UNITED STATES

At a series of conferences on medical education and medical legislation, recently held in Chicago, someone made the statement that the number of physicians legally licensed to practice medicine in the United States was 120,000, making approximately one physician for every 800 people. This statement has been the basis of various newspaper comments all over the country, and so the error will be passed on till someone guesses some other number and makes the guess public. The number of physicians in the United States is variously given by various individuals—sometimes it is as low as 100,000, at others as high as 160,000. There are, at present, between 139,000 and 140,000 individuals, practically 140,000, who are licensed practicing physicians in the United States, or approximately one physician for every 650 people. But it should be remembered by those who make comments on this subject that the above figures do not include the "vitapaths," "naturopaths," "osteopaths," "panpaths," "chiropractics," "mechanotherapists," Eddyites, "magnetic healers," etc., who, whether they be said to "practice medicine" or not, are making diagnoses and are professing to treat human ailments. The number of these in practice we would not dare to estimate. Especially must the followers of these cults be considered when we are comparing the proportion of physicians to population in this country with that of some other countries where these cults do not exist.

PROGRESSIVE PREVENTION OF EPIDEMICS

The efficient handling of the cases of meningitis coming to New York from Greece within the past two or three weeks speaks well for the quarantine service at that port. All cases seem to have been promptly recognized and isolated, preventing the spread of the disease. The intensive study of this disease, which culminated in the Flexner serum, has given such an accurate knowledge of this infection that, except in communities poorly equipped with health and quarantine organizations, where the disease may gain a substantial foothold, danger of serious or prolonged epidemics is very nearly *nil*. Almost or quite as good results are assured in handling the still more deadly infections, cholera and plague; and poliomyelitis will no doubt soon be equally controllable through advance in scientific knowledge. It is a source of extreme gratification that meningitis and the other devastating infections have so far yielded to the direct attacks of science.

Medical News

CALIFORNIA

Personal.—Dr. Daniel B. Northrup, health officer of San Diego County, is reported to be ill with septicemia.——Dr. Edward R. Wagner, San Jose, has returned after six months in Europe.

Segregation Experiment.—The hospital which is to be operated in connection with the proposed plan for the segregation of prostitutes in San Francisco, opened March 21, at 684 Commercial Street, under the supervision of Dr. William F. McNutt, health officer of the city.

San Joaquin Physicians Meet.—The thirty-first semiannual meeting of the San Joaquin Valley Medical Society was held in Fresno, March 14. The following officers were elected: president, Dr. Walter E. Lilley, Merced; vice-presidents, Drs. George H. Aiken, Fresno, and Charles O. Mitchell, Laton.

Pasadena Entertainment Fund.—At a meeting of the executive committee of the Los Angeles Convention League it was announced that the physicians of Pasadena had raised a fund of $3,000 for the entertainment of delegates to the American Medical Association meeting, and that Adolphus Busch would give a barbecue on the grounds of his Pasadena home to the visitors at a cost of $10,000.

IDAHO

Personal.—Dr. Francis H. Poole, Pocatello, has been appointed superintendent of the Idaho State Insane Asylum, Blackfoot, vice Dr. Clayton A. Hoover, who will locate for practice in Pocatello.——Dr. Frank L. Barrows, Moscow, has started for Europe, via Philadelphia, where he will spend three months.——The Idaho supreme court is said to have decided that the State Board of Medical Examiners must issue a license to practice medicine to Dr. Emanuel Vadney, who has practiced for thirteen years in Morrow.

ILLINOIS

Personal.—Dr. Frank H. Jenks, assistant superintendent of the Elgin State Hospital since 1897, has resigned. Dr. Jenks has purchased the Ransom Sanitarium at Rockford and will assume charge May 1.——Dr. Lester C. Diddy, Oswego, who has been seriously ill at St. Charles Hospital, is improving. ——Dr. Clarence T. Roome has been appointed medical inspector of schools of Evanston.——Dr. Benjamin Gleeson and family, Danville, sailed for Europe, March 31.

Legislative Progress.—The osteopathic bill, House Bill No. 380, has been killed in judiciary committee of the house; the optometry bill, Senate Bill No. 140, is still in senate committee on sanitary-district affairs; and optometry bill, House Bill No. 121, is still in house committee on judiciary. These two bills, which are practically identical, should be defeated, as their enactment would be detrimental to the interest of the lives and health of the people of Illinois. For this reason they are opposed by the State Board of Health.

State Board Convictions in Chicago.—The following convictions for violation of the Medical Practice Act have been reported by the State Board of Health: V. Potenza, an old offender, fined $200 and costs.——Mrs. A. Kohler, a fortune teller who gave medicine, $100 and costs.——W. E. Krause, a "chiropractor" who claims to be a physical culturist, $100. ——Mrs. Herbert Gray, who exploits the "Novita Remedies," $100 and costs.——Rosina Bisesi, a midwife, $100 and costs, and C. J. Ostberg, a "chiropractor," convicted. McCormick, of the so-called McCormick Medical College, and a "Dr. Worth" testified. McCormick was asked whether his school was recognized by the State Board of Health. He said that it was not, nor did he ever want any recognition. Worth represented himself as an osteopathic physician who said he did not have a license from the State Board of Health nor did he care anything for the board. Ostberg appears to have been misled by McCormick.

Chicago

Personal.—Dr. Samuel J. Walker, who was operated on for appendicitis, March 23, is reported to be making satisfactory progress toward recovery.——Dr. H. Wernicke Gentles left Chicago, March 27, for a visit to Scotland.

Woman's Club to Manage Hospital.—The difficulties which have surrounded the management of Mary Thompson Hospital are to be shouldered by a committee of eight members of the Chicago Woman's Club, to be appointed by the president. These women are to act on the board of the hospital and will officially represent the active interest which the club is taking in the institution.

Additional Gift to Medical School.—At a meeting of the trustees of Northwestern University, March 23, it was announced that James H. Patten had added $50,000 to his gift of $200,000 for the establishment of a department of research on infectious diseases, at the medical department of the university. Everything will be ready in the fall for the opening of the laboratory and the start of research work.

To Celebrate Foundation Day.—Northwestern University will celebrate the twenty-fifth anniversary of the founding of the School of Pharmacy, April 12 and 13. In conjunction with

the celebration, the faculty, alumni and students of the school have planned special exercises in honor of the dean, Oscar Oldberg, who will have completed twenty-five years of service at that time, and expects to retire from active duty because of ill health.

INDIANA

Medical Students in Accident.—Harry H. McCoy and Claude Niedhamer, students of the Indiana University College of Medicine, were struck by an interurban car near Indianapolis, March 24. McCoy was killed and Niedhamer was seriously injured.

Antituberculosis Society Organized.—The White Plague Warfare Recruits, with headquarters at Frankfort, has been incorporated. The organization has no capital stock, but its object is to fight tuberculosis, and it plans to buy property, build fresh-air camps and conduct warfare against white plague.

Personal.—Dr. George J. Studer, who has been seriously ill at the Lutheran Hospital, Fort Wayne, is reported to be considerably improved.——Dr. Eduard J. McOscar, Fort Wayne, has returned from a five weeks' trip to Central America and Panama.——Dr. and Mrs. George W. Combs, Indianapolis, left for Europe, March 23.

IOWA

Personal.—Dr. David T. Martin, Pomeroy, who was seriously injured in a runaway accident, is a patient in Mercy Hospital, Fort Dodge.——Dr. George P. Hanawalt, Des Moines, who has been seriously ill with asthma, is reported to be convalescent. ——Dr. John C. Lewis, Ridgeway, is said to have sold his practice and is about to retire.——Dr. Gershom H. Hill has been elected president of the Associated Charities of Des Moines.

Faculty Changes.—Rudolph Flebbe, Ph.D., a graduate of pharmacy of the University of Leipsic, and later assistant in the government agricultural research station, has been secured as head of the clinical laboratory, of the pathologic department of Drake University Medical College, with the title of instructor in pathology. His time will be devoted almost entirely to individual research and the supervision of research work of special workers in his laboratory.——Dr. Hubertus J. M. Hoeve, for several years instructor in anatomy in the Medical Department of Drake University, will, it is said, sever his connection with that institution at the end of the winter semester.

MARYLAND

Portrait Presented.—The friends of Dr. Charles M. Ellis, Elkton, have had painted a portrait of him, which will be presented to the Medical and Chirurgical Faculty of Maryland, of which he was once president.

New Hospital.—The trustees of Havre-de-Grace Hospital take possession of the Baker property, April 1. Articles of incorporation have been filed and the first instalment of the purchase price is ready. Work on the building will soon commence.

Baltimore

Must Give Up Private Practice.—It is announced that the members of the medical and surgical staff of Johns Hopkins Hospital will be required to give up private practice and devote themselves exclusively to the work of the hospital.

Personal.—Dr. Ernest H. Gaither sailed for Germany, March 25.——Dr. James M. H. Rowland is suffering from an infection of the right hand.——It is announced that Dr. Alexius W. McGlannan has resigned as chief surgeon of the Maryland National Guard.

Department of School Hygiene.—Baltimore is to have a department of school hygiene in connection with the Department of Health. The plan originated with Dr. John M. T. Finney. Most of the diseases and mental weaknesses found among school children are believed to be due to unsanitary conditions in the schools.

Pasteur Institute Report.—During the last year 123 persons were treated at the Pasteur Institute, 20 in wards, and 103 at their homes. There were 53 persons bitten by animals demonstrated to be rabid by cerebral inoculation of rabbits. Wounds were inflicted by dogs in 113 cases, cats in 7, horses in 2 and by a calf in 1. One death occurred.

MASSACHUSETTS

Awarded Medal for Bravery.—Dr. Francis E. Park, Stoneham, has been awarded a medal for bravery by the Massachusetts Humane Society for the rescue of a laborer in a sewer overcome by fumes from a tannery.

College Building Enlarged.—Tufts College Medical School, Boston, has enlarged and remodeled its college building at an expense of approximately $50,000. A fourth floor has been added to the entire building and several important changes have been made on the other floors.

Personal.—Dr. William M. Gay has been appointed port physician of Boston.——Dr. Francis X. Crawford succeeds Dr. Gay as assistant port physician.——Dr. Bertha F. C. Frommell, Fairhaven, has been elected a member of the board of health of New Bedford.——Dr. Charles A. Reese has been elected a member of the board of health of Wellesley Hills.—— Dr. Paul Carson, formerly port physician of Boston, has been transferred to the division of school hygiene.——Dr. Simeon B. Wolbach, assistant professor of bacteriology in Harvard Medical School, has started for West Africa, to study sleeping-sickness.——Dr. Samuel H. Durgin has been reappointed chairman of the Boston Board of Health.——Dr. Richard Collins has been appointed a member of the Waltham Board of Health. ——Dr. Frederick F. Andrews has been reelected a member of the Revere Board of Health.

MINNESOTA

State Health Department Bulletin.—The health department announces that it will issue in a few days, the first number of a monthly bulletin in pamphlet form, which will contain all statistics pertaining to the department.

A New Antituberculosis Association.—An antituberculosis association has been organized in Crookston, with Dr. Thomas Spence as a member of the board of directors, and Dr. Halvor Holte as chairman of the finance committee.

Physicians' Building.—Plans have been made for the erection on the Stewart Homestead, Hennepin Avenue and Fourth Street, Minneapolis, of a ten-story reenforced concrete building for physicians and dentists, to cost about $700,000.

Unlicensed Doctor Fined.—Henry Wuerzinger, Minneapolis, is said to have been found guilty, March 2, of practicing medicine without a license and fined $50. This action is said to be the result of internal strife in the Minnesota Association of Naturopaths, which made the complaint, and of which the defendant formerly was president.

Personal.—Dr. Paul B. Cook has been appointed first assistant to the commissioner of health of St. Paul, vice Dr. John M. Armstrong.——Dr. Gustav A. Rentz, formerly health commissioner of St. Paul, leaves this month for Europe.——Dr. Gustaf A. Magnusson, Aitkin, has been appointed instructor in bacteriology and pathology at the State University.

Physicians' Wives Meet.—The Woman's Auxiliary of Hennepin County Medical Association held its annual meeting in Minneapolis, March 13, and elected the following officers: president, Mrs. William J. Byrnes; vice-presidents, Mrs. Charles A. Donaldson and Mrs. Thomas F. Quinby; recording secretary, Mrs. J. Frank Corbett; corresponding secretary, Mrs. Ernest Z. Wanous, and treasurer, Mrs. Charles H. Hunter, all of Minneapolis.

Election.—At the annual meeting of Washington County Medical Society, held in Stillwater, March 14, the following officers were elected: president, Dr. Edgar O'B. Freligh, Stillwater; vice-presidents, Drs. James Haines, Stillwater, and Frederick A. Stevens, Lake Elmo; secretary-treasurer, Dr. Wade R. Humphrey, Stillwater; censor, Dr. Burton J. Merrill, Stillwater, and delegate to the state association, Dr. Ernest E. Wells, Stillwater.

NEW YORK

Eyeglasses for Pupils.—Assemblyman Levy has introduced a measure which would require the Board of Education of New York City to furnish eyeglasses or spectacles to pupils in the public schools. This it is estimated would require the Board of Estimate and Apportionment to appropriate $15,000 annually for this purpose.

The Insane.—There are now in this state 32,657 insane persons in hospitals, or about 1 to every 200 of the adult population. In 1890 the number of insane in hospitals and almshouses in this state was 16,006; this shows an increase of 104 per cent. The cost of caring for insane persons in the state hospitals last year was $5,659,942.76. The average cost for additional buildings for the insane would be about $1,000,000 if all were properly housed. During the past ten years the state has spent for the care of the insane $54,018,361. About one-sixth of the total expenditure of the state is for the insane. It equals an annual tax of 70 cents on every man, woman and child in the state.

New York City

Increased Capacity at Beth Israel Hospital.—By the opening of a new ward, at a cost of over $10,000, the capacity of this institution has been increased to 140.

Personal.—The board of trustees of Bellevue and Allied Hospitals has appointed Dr. George O'Hanlon general medical superintendent, vice Dr. Winford H. Smith.

Hospital May Sell Buildings.—The directors of St. Andrew's Convalescent Hospital have received permission to sell the buildings of that institution for $27,000. It is the intention of the officials to move to new buildings on East Seventeenth Street.

Give Fund for Training School.—Mr. and Mrs. William Church Osborn, New York City, have presented a building costing $250,000 to be used as a club home and registry for nurses, the building to be known as Osborn Hall in memory of the late Mrs. William H. Osborn, to the Bellevue Training School for Nurses.

New Dispensary in Brooklyn.—The New Utrecht Aid Society has been formed with the object of opening a dispensary for the poor in the Parkville, Kensington, Windsor Terrace, and Borough Park sections of Brooklyn. The dispensary will be non-sectarian. The staff includes Drs. H. M. Calvin, John J. Masterson, M. B. Gordon, O. C. Stackhouse, J. J. Rosenthal, Edmund G. Silverman and Morgan T. McSheehy.

Health Bulletins.—The latest bulletins of the Department of Health of New York City urge parents to have children promptly vaccinated; advise parents who intend obtaining employment certificates for their children to secure the requisite evidence of age in the shape of birth certificate as early as possible; and decry the danger of the spread of cerebrospinal meningitis in the city, and call attention to the methods pursued by the board of health in guarding against a possible invasion of this disease.

Reduction of Infant Mortality.—The Committee on the Reduction of Infant Mortality of the New York Milk Commission is endeavoring to raise $200,000 to establish sixty milk depots; nearly $40,000 has already been raised. These depots will be conducted along the lines of those of the department of health. The committee states that there are born annually 65,000 babies in Manhattan; of these 12,000 need the aid of milk depots, 4,000 already receive it, and the remaining 8,000 the committee proposes to save. There are probably 16,000 poor babies in Manhattan under 1 year old who succumb to disease every year; probably half of this number could be saved with proper care and nourishment, such as could be given with the aid of milk depots.

The Need of Medical Missionaries.—On March 11, a mass meeting of medical students, hospital interns, and other practitioners was held at the Academy of Medicine to lay before the medical profession the demand for modern practitioners in unchristianized and uncivilized countries. Dr. William M. Polk, president of the academy, was in the chair, and in his introductory remarks, spoke on "The Medical Pioneer." He then introduced Sir Wilfred T. Grenfell of Labrador, who made an earnest appeal for men to devote their lives to the practice of medicine in foreign lands. He then showed by lantern slides the development of his own work in Labrador and Newfoundland. There were about 400 medical students and physicians at the meeting, which was promoted and held under the auspices of the Student's Club, the Intercollegiate Branch of the Young Men's Christian Association of New York City. There are already fifteen students in the medical schools in New York City who plan to go as medical missionaries to foreign lands.

PENNSYLVANIA

Clinical Society Election.—The annual meeting of North Penn Clinical Society was held in Sellarsville, March 15. Dr. James I. Cawley, Springtown, was elected president; Dr. J. Warren Bauman, Lansdale, vice-president; Dr. Walter H. Brown, Richlandtown, secretary, and Dr. John J. Ott, Pleasant Valley, treasurer.

Woman's Medical College.—A modern well-equipped clinical amphitheater has been erected recently for the Woman's Medical College of Pennsylvania at a cost of about $22,500, and is now in use. The building includes a complete sterilizing plant, anesthetizing and recovery rooms, dressing rooms for surgeons and assistants, and waiting rooms for patients. ——Beginning with the session of 1911 and 1912, entrance conditions at the college will be reduced from six to four points. Inorganic chemistry will not be accepted as an entrance condition but will be required in every case. This subdivision of chemistry will no longer be part of the work of the first year.

Personal.—Dr. Samuel G. Dixon, Commissioner of the State Department of Health, has appointed Dr. T. Ben Johnson, of Towanda, to succeed the late Dr. Skiles M. Woodburn as county medical inspector of Bradford County and chief of the state department of health tuberculosis dispensary in Towanda.——Dr. John A. Bouse, special state medical inspector, is dangerously ill at his home in Harrisburg, with valvular heart disease. Dr. Bouse had charge of the state health's department tuberculosis exhibition and superintended its presentation in the various cities throughout the state.——Dr. Colley Johnson Miller, Brownville, is seriously ill in St. Francis' Hospital, Pittsburg, as the result of an attempt at suicide, made March 20, while he was mentally irresponsible.——Dr. John B. Carrell, Hatsboro, sailed for Europe, March 23.——Dr. Cyrus L. Stevens, Athens, has been elected secretary of the Bradford County Medical Society, vice Dr. Skiles M. Woodburn, Towanda, deceased.

Philadelphia

President Guest of Medical Club.—President Taft has accepted the invitation of the Medical Club of Philadelphia to be its guest on the evening of April 21.

Gifts to Hospitals.—The will of the late Ellis H. Yarnall contains a contingent bequest of $200,000 to the Episcopal Hospital.——Under the will of Catherine Boyle, St. Mary's Hospital receives $5,076.67.

Personal.—Dr. E. Avery Newton, formerly of Philadelphia but now of Bad Nauheim, Germany, is taking a trip round the world.——Dr. W. E. Keplar has been appointed assistant medical inspector of the bureau of health.

Hospital Staff Election.—The Samaritan Hospital Staff has chosen the following officers: president, Dr. Jesse O. Arnold; secretary, Dr. Charles S. Barnes, and Chairman of the executive committee, Dr. Daniel J. Donnelly.

Weir Mitchell Lecture.—The second of the Weir Mitchell lectures of the College of Physicians, was delivered March 30, by Dr. Edmund B. Wilson, professor of zoology in Columbia University, on the "Cellular Basis of Heredity."

University Publication Discontinued.—The *Medical Bulletin of the University of Pennsylvania* ceased publication March 20 after an existence of twenty-three years. The bulletin was a monthly magazine which circulated largely among the medical alumni of the university, especially those living in Philadelphia.

Case of Beriberi.—A Norwegian vessel, which arrived at Marcus Hook Quarantine Station, March 23, was found to have a case of beriberi aboard. The sailor had been suffering for several weeks and no special effort at isolation had been made. He was sent to Marcus Hook Hospital and the other members of the crew were given a thorough examination.

German Hospital Addition.—On March 18, the cornerstone of the new $100,000 addition to the German Hospital was laid by Herman Hessenbruch, president of the institution. When finished the building will be used as a maternity hospital and nurses' home, will be a five-story granite and brick construction, fire-proof throughout, equipped with elevators and other modern conveniences and will accommodate sixty nurses.

Elections.—At the last meeting of the Philadelphia Neurological Society the following officers were elected to serve for 1911: president, Dr. Alfred R. Allen; vice-presidents, Drs. John H. W. Rhein and Samuel D. Ingham; secretary, Dr. George E. Price; treasurer, Dr. S. DeWitt Ludlum; councilors, Drs. James H. Lloyd, H. H. Donaldson and Francis X. Dercum. ——The officers of the Medicolegal Society for 1911 are: president, Dr. Lambert Ott; first vice-president, Clarence Loeb, Esq.; second vice-president, Dr. William D. Robinson; secretary, Dr. William T. Hamilton; treasurer, Dr. George M. D. Peltz; censors, Dr. Francis J. Kelly, James H. Wolfe, Esq., and Dr. Louis D. Bauer.

To Begin Work on Phipps Institute.—As soon as the contract can be made, the University will begin the erection of the Phipps Institute for the study and treatment of tuberculosis, which will be located at the northeast corner of Seventh and Lombard Streets. Plans for the building were filed with the Bureau of Building Inspection by the architect on March 16. The lot which the building will occupy extends from Lombard Street to Seventh Street, directly opposite Starr Garden Park. The building will be a five-story and basement fire-proof and brick structure with a frontage of 147 feet on Seventh Street

from Addison to Lombard and a depth of 132 feet on Lombard Street. The main entrance will be on Seventh Street. The Lombard Street front will be built with two wings with a sunken garden between, the whole surrounded by iron railings. In the basement of the building will be a library, lecture hall, lavatories, mechanical rooms, etc. The second floor will have a large laboratory for experimental work and the third, fourth and fifth floors will be mainly devoted to large open-air wards. The accommodations will be such that treatment can be given to several indoor and outdoor patients. The cost of the building will be about $300,000.

Plans for New City Institutions.—On March 18, the mayor approved an ordinance, appropriating to his department $150,000 for the purchase of land that might be needed for public improvements. The mayor proposes using $135,000 to buy the Alexander Brown tract of wooded land, comprising 135 acres, adjoining the Torresdale Filtration Plant, for the purpose of building thereon an institution for the care of the feeble-minded and a home for indigent women. Instead of erecting one great building for the feeble-minded, the plans call for the erection of separate cottages with a central heat, light and power plant. The city already owns 55 acres of ground adjoining the house of correction, at Holmesburg, where it is proposed to build a home for indigent men. The city also owns the Byberry tract of 800 acres of unimproved land. This is to be the site of the Philadelphia Hospital for the Insane. The state will cooperate with the city in its establishment, for which appropriation bills are now pending in the legislature. This divorce of the almshouse and feeble-minded department from the Philadelphia General Hospital will give wider scope and development to that institution. It is proposed to furnish heat, light and power for the Holmesdale and Torresdale institutions from the power plants operated in connection with the house of correction and the Torresdale low-lift pumping station. There is nearly $800,000 already available for the establishment of these homes for the indigent and with the balance of $150,000 for the acquirement of land, municipal improvements can begin at once.

SOUTH CAROLINA

Meeting of State Society.—The annual convention of the South Carolina Medical Association will be held in Charleston, April 19-21.

Personal.—Dr. G. DeFoix Wilson, Spartanburg, charged with violating the health ordinance of the city by failure to report cases of small-pox, was exonerated when the case was tried. ——Dr. Isadore Schayer, Laurens, has been designated to inspect the property and personnel of the national guard of the state.

Penitentiary Health Conditions.—The senate has adopted the report of the medical affairs committee, with the recommendation that the State Board of Health be requested at once to make a thorough investigation, and to make such recommendations for the removal of the cause of complaint, if any such cause be found, as in their judgment will best preserve the health of the convicts confined in the state penitentiary.

County Physicians Elect.—At the annual meeting of the Laurens County Medical Society, held in Laurens, the following officers were elected: president, Dr. Thomas L. W. Bailey, Clinton; secretary-treasurer, Dr. Jesse H. Teague, Laurens; delegates to the state medical association, Drs. W. Dorroh Ferguson and Rolfe E. Hughes, Laurens, and alternates, Drs. Thomas L. W. Bailey, Clinton, and Jesse H. Teague, Laurens. ——Sumter County Medical Society, at its meeting in Sumter, elected Dr. H. Ashley Mood, president; Dr. William E. Mills, vice-president; Dr. Edwin R. Wilson, secretary-treasurer; and Dr. Charles J. Lemmon, delegate to the state medical association, all of Sumter.

SOUTH DAKOTA

New Hospital.—Physicians of Yankton and vicinity met at Sacred Heart Hospital, February 28, to inspect designs for the new hospital to be erected on Mount Marty. The building will have a frontage of 220 feet with wings of 80 feet, will be five stories in height, and estimated to cost about $250,000.

Society Charter Revoked.—On the recommendation of the councilors, the house of delegates of the South Dakota State Medical Association, February 21, revoked the charter of the Hot Springs (Tenth District) Medical Society on account of unprofessional conduct on the part of some of the members. The society had failed to take action, after being requested to do so

WISCONSIN

Home for Feeble-Minded.—A bill introduced in the legislature by Senator Hoyt provides for an appropriation of $150,000 for the purpose of securing a site of not to exceed 1,000 acres, near Milwaukee, for a state home for the feeble-minded.

Unlicensed Practitioner Convicted.—Rev. J. P. A. Nordin, head of Nordin Institute for Dependent and Deformed Children, Milwaukee, is said to have been found guilty of practicing medicine without a license, and fined $50 and costs.

One Institution for Tuberculosis.—At a recent meeting of the Milwaukee County Medical Society, a resolution introduced by Dr. Gilbert E. Seaman, approving the idea of the city to incorporate all institutions dealing in any way with the tuberculosis problem under one general head, was adopted.

Fraternity Election.—The Kappa Chapter of the Alpha Kappa Kappa Fraternity held its annual election in Milwaukee, March 17. Dr. Daniel Hopkinson, Milwaukee, was reelected president; V. Brumbaugh, vice-president; P. Braman, recording secretary; W. Schnell, corresponding secretary, and P. R. Noe, treasurer.

Election.—At the annual meeting of the Outagamie County Medical Society, held in Appleton, March 7, Dr. Victor F. Marshall, Appleton, was elected president; Dr. John J. Laird, Black Creek, vice-president; Dr. Frank P. Dohearty, Appleton, secretary-treasurer, and alternate-delegate to the state society; Dr. Gerald C. Maes, Kimberly, censor; and Dr. Charles D. Boyd, Kaukauna, delegate to the state society.

Directors of Antituberculosis Association Meet.—At a meeting of the directors of the Wisconsin Antituberculosis Association, a new constitution and by-laws was adopted, and a new board of directors was elected, which in turn elected the following officers: president, Dr. Mazyck P. Ravenel, Madison; vice-presidents, Prof. Louis E. Reber, Madison; and Dr. Gustave Windesheim, Kenosha; secretary, Dr. Clarence A. Baer, Milwaukee; treasurer, John H. Kopmeier, Milwaukee; and executive committee, the president, first vice-president, secretary, treasurer, and Dr. John W. Coon, Wales. It was reported that $27,313.94 had been realized from the sale of Red Cross seals during the Christmas vacation.

GENERAL NEWS

The Study of Narcotics.—The American Society for the Study of Alcohol and Other Narcotics will hold its fortieth annual meeting in Baltimore, April 19 and 20. Historic addresses and scientific papers on laboratory and clinical research work on alcohol, inebriety and narcotics will be presented. Dr. Thomas D. Crothers, Hartford, Conn., is secretary.

Service Schools Close.—The commencement exercises of the United States Navy Medical School were held, March 23, in Washington, when a class of thirteen was graduated.——The Army Medical School, Washington, has been closed two months in advance of the usual period in order that the service of the graduates may be utilized in the maneuvers on the Mexican frontier.

Missouri Valley Meeting.—The twenty-third semiannual meeting of the Medical Society of the Missouri Valley was held in St. Joseph, March 16 and 17, under the presidency of Dr. Donald Macrae, Council Bluffs, Ia. On the first evening Dr. Henrich Stern, New York City, delivered the oration in medicine on "Decay of Nations." Dr. Oliver C. Gebhart, St. Joseph, was elected treasurer to succeed Dr. Thomas B. Lacey, Jr., Council Bluffs, resigned. A report of the scientific proceedings will appear in THE JOURNAL.

A Disclaimer.—The following members of the faculty of the University of Liverpool desire to disclaim any credit or responsibility attached to statements made or conclusions drawn in a book by Mr. H. C. Ross and Dr. J. W. Cropper, just published by Messrs. John Murray and Sons, entitled "Induced Cell Division and Cancer:" R. J. Gibson, professor of botany; W. A. Herdman, professor of zoology; B. Moore, professor of biochemistry; Dr. S. C. Sherrington, professor of physiology and J. Reynolds Green, lecturer on vegetable chemistry. These gentlemen state that they have had no opportunity of seeing the work either in manuscript or in proof.

Gastro-Enterologic Program.—The preliminary program for the fourteenth annual meeting of the American Gastro-Enterological Association, which is to be held in Philadelphia, April 18-20, contains a number of interesting titles, among which are the following: "The Relation of Symptoms to Pathologic Findings in Cancer and Ulcer of the Stomach," by Dr. Joseph Colb Bloodgood, Baltimore; "Operative Treatment of Impermeable Cardiospasm," by Dr. Willy Meyer, New York City;

"The Gastric Weak Line in Wounds of the Abdominal Wall," by Dr. Robert T. Morris, New York City; "Study of Anthropometry of Enteroptosis," by Dr. John C. Hemmeter, Baltimore; "The Cammidge Reaction in Tuberculous Cases," by Dr. Charles D. Spivak, Denver; and "Duodenal Ulcer," by Drs. Lewis Brinton, Philadelphia; James T. Pilcher, Brooklyn; John A. Lichty, Pittsburg, and A. L. Benedict, Buffalo.

Control of Bovine Tuberculosis.—The meeting of the International Commission on the Control of Bovine Tuberculosis was held in Buffalo, February 27, at which it was decided that the first task of the commission should be the preparation of material for a small pamphlet on the subject of bovine tuberculosis for the general public, especially stock owners, and embodying full statements of available information on the subject so far as it concerns stock owners in a practical way, and so far as such information is acceptable to the commission. The committee entrusted with the preparation of the pamphlet consists of Dr. Veranus A. Moore, Cornell University; Dr. John R. Mohler, Federal Bureau of Animal Industry; J. J. Ferguson, representing the American packers; Dr. Myron H. Reynolds, St. Paul, Minn., representing the American veterinarians; and Dr. F. Torrance, Manitoba, representing the Canadian veterinarians. The next meeting of the commission will be held in Toronto in August.

CANADA

New Bacteriologic Laboratory.—Plans for the new bacteriologic laboratory in the city hall, Toronto, were passed by the board of control, March 22, and an appropriation of $9,000 was made to cover the cost of construction.

Bequests to Hospitals.—By the will of the late Charles Burd, Montreal, $10,000 is bequeathed to the Montreal General Hospital; $5,000 to the Protestant Hospital for the Insane; $2,500 to the Western Hospital, and $2,000 to the Alexandria Hospital.

Personal.—Dr. Helen MacMurchy, Toronto, for the last six years editor of the *Canadian Nurse*, has resigned from that position.——Dr. John Gaven, Toronto, has returned from Florida.——Dr. George R. McDonagh, Toronto, returns from Barbadoes this month.——Dr. Thomas G. Roddick has been elected president of Alexandria Hospital, Montreal.

Hospital Notes.—Western Hospital, Montreal, admitted 1,291 patients in 1910, and treated 1,358. In the outpatient department 12,878 patients were treated.——The Royal Victoria Hospital, Montreal, admitted 4,309 patients during the year and cared for 4,532 in the outpatient department; 297 deaths occurred during 1910.——Alexandria Hospital, Montreal, treated 820 patients during the year with a mortality of 47.

The War Against Tuberculosis.—At the meeting of the Winnipeg Antituberculosis Society, March 14, the superintendent of the Ninette Sanatorium, reported that Winnipeg has the best record for tuberculosis cases. The secretary reported that addresses had been given on 22 occasions before clinics, societies, etc., and before 65 classes in Winnipeg public schools, and that in the same time 2,500 visits had been paid to 202 patients suffering from tuberculosis, of whom 48 died.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, March 18, 1911.

Plague and Its Spread

Mr. James Cantlie, of the London School of Tropical Medicine, who has spent many years in the East where he helped to found a medical college for the Chinese, is well known as an authority on plague, and during recent years has been charged with the examination of every person in London suspected of plague, recently delivered a lecture on "Plague and Its Spread" before the Royal Society of Arts. The prevalence of plague in the world in epidemic form since 1894 was, he said, a matter of supreme interest to every nation. The question arose: has the virulence of the malady spent itself and may we look forward to abatement of the pandemic? The history of previous epidemics did not engender a hopeful answer; indeed the opposite obtained, for all previous outbreaks indicated the long continuance of plague in every community in which it had gained a hold. There were three stages of plague: (1) *pestis minor*, which was carried only by insects from diseased animals, always local, a household outbreak in fact, in which the pseudoplague bacillus is found in man; (2) bubonic plague, carried from man to man by insects; (3) pneumonic plague passing from man to man without the intervention of insects. Time was required for one plague type to change into another more virulent, until at last plague no longer required an animal host but became wholly a disease of man. An important point in the epidemiology of plague was that animals, chiefly rodents—the rat in many places, the marmot in north China and the squirrel in the United States—might suffer for years without infecting man, except in a sporadic way. In north China this had been proved to be the case and in any country where rodents were infected this might be expected.

Precautions in London Against Rat Plague

The following regulations "for the prevention of an outbreak of plague among rats at the docks" have been adopted: All ropes and mooring tackle shall be fitted with such effective guards as will prevent access of rats from the vessel to the shore. For breach of this regulation the penalty is one not exceeding $25. 2. All possible means shall be adopted for catching and destroying rats during the stay of any vessel in dock. All empty cases and barrels shall be examined before being landed to ensure that no rats are contained therein. Any rats caught on board the vessel shall be killed and then placed in bucket of strong disinfecting solution and burnt in the ship's furnace. The same penalty is enforced for breach of this regulation. 3. When the discharge of cargo or the landing or embarking of passengers is not proceeding only one gangway shall be permitted between the vessel and the shore. The end near the vessel shall be whitened for a length of 10 feet. The same penalty is enforced for breach of this.

The Small-Pox Epidemic in London

The number of cases of small-pox which have occurred in London in the present outbreak now numbers fifty-eight. The London County Council has resolved that for a period of three months chicken-pox shall be a reportable disease, experience having proved that slight cases of small-pox are sometimes mistaken for chicken-pox.

The New House of the Royal Society of Medicine

In the heart of medical London a handsome building is being erected which will provide ample accommodation for the Royal Society of Medicine for many years, even if the membership of the society continues to increase in the manner expected. The area of ground is nearly 10,000 square feet. The building will consist of basement, ground floor and three upper floors. On the ground floor will be a spacious vestibule and two halls—one capable of holding about 500 and the other 150 persons and patients' rooms for each sex. The whole of the first floor will be occupied by the library, and the offices of the secretary, editor and clerks. The library will be 110 feet long, 28 feet wide and 19 feet high. The periodical room will be an annex. There will be a gallery all round and a mezzanine room with additional tables for readers. On the third floor will be a museum, a room equipped for the examination of specimens and histologic work, a smoking room, and a tea and conversation room. The cost will be $150,000, of which $60,000 has been promised or collected.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, March 17, 1911.

Dedication of the Monument to Professor Cornil

March 5, at the Ecole pratique of the Faculté de médecine the monument in honor of Professor Victor Cornil was dedicated. The ceremony was presided over by M. Fallières, the president of the republic, and a great number of professors and political notables were present, Cornil having been a deputy and senator. Among the addresses given was one by Professor Landouzy, who mentioned that Cornil was the real founder of pathologic histology in France.

The monument is the work of Dr. Paul Richer, who is a member of the Académie de médecine and the Académie des beaux-arts. The design is an architectural one, with a laurel-decorated summit surmounted by the bust of Cornil. The center is occupied by a bas-relief representing Cornil's pathologic-anatomic laboratory, with flasks of reagents and microscopes on tables, and a body stretched on a slab ready for the autopsy. An allegorical figure of Truth, seated by one of the angles of the base in a grave and meditative pose, holding a palm-leaf, seems to glorify the fruitful labor of the master who has found in the analysis of diseased organs the true causes of death. The bust is in marble, the architecture in stone, and the bas-relief and the allegorical figure in bronze;

the base bears the inscription *A Victor Cornil, ses élèves, ses amis.* "To Victor Cornil from his pupils and friends;" on the posterior face of the monument is the inscription: *Victor Cornil, 1837-1908; professeur d'anatomie pathologique à la Faculté de médecine de Paris, 1882-1907.*

Salvarsan and Advertising

As was to have been expected, the discussions about Ehrlich's discovery, even (not to say especially) in non-medical circles, have given an opening to all kinds of charlatans to make use of the famous German scientist's name for their advertisements. For some time supposedly scientific articles on salvarsan have been appearing in the lay press. They state that "all syphilities without exception are amenable to 606," that "606 is the veritable vaccine of syphilis," etc. Finally, comes the declaration that to obtain the maximum efficacy it is necessary to send to some "serotherapeutic institute" or "laboratory of biology." It is unnecessary to say that these are institutes and laboratories only in name.

Personal

On March 7 the Académie de médecine elected a member in the section of anatomy and physiology to replace Professor Farabeuf, who died last August. The new member is Dr. Prenant, who was, three years ago, chosen to be professor of histology of the Faculté de médecine de Paris and who was previously professor at the Faculté de médecine de Nancy.

In the session of March 14 the Académie de médecine elected two national correspondents in the section of medical pathology. These were Dr. Lannois, adjunct clinical professor of laryngology, otology and rhinology at the Faculté de médecine de Lyon, and Dr. Maurel, professor of experimental pathology at the Faculté de médecine de Toulouse.

On March 13 the Académie des sciences elected Professor Pawlow of St. Petersburg as correspondent in the section of medicine and surgery.

Professional Responsibility of Surgeons and Physicians

At a meeting of the Association de l'internat des hôpitaux de Paris on March 17 this timely question was treated from the legal point of view by M. Colin, professor at the Faculté de droit de Paris. In general, M. Colin mentioned that two conditions were necessary to make the surgeon responsible: the first was material or moral harm to the patient; the second was fault on the part of the surgeon, which might be either medical or non-medical. The latter would be within the competence of the ordinary judge. But how and by whom should serious medical fault be judged? M. Colin believes that an expert alone can appreciate a medical fault, and that his rôle is not always easy. One runs the risk of stifling all initiative and arresting progress by condemning a new treatment or an audacious procedure. M. Colin mentioned the reply of Velpeau in regard to the first accidents due to chloroform: "It is not the surgeons who have need of chloroform; it is the patients." After reviewing the jurisprudence on this subject, which is not well defined, M. Colin advised physicians and surgeons to form associations for mutual insurance as the only means of defending themselves, for they are now often the prey of blackmailers.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, March 10, 1911.

Death of van 't Hoff

A few days ago in a suburb of Berlin, there died at the age of 59, from a lung disease of some years' standing, the renowned chemist and honorary professor in the Berlin university, J. H. van 't Hoff. [See editorial, March 18, page 818.] He was born in Rotterdam in 1852 and studied in Leyden, Bonn, Paris and Utrecht, devoting himself to the natural sciences; he was appointed privat-docent at the latter university in 1876, and in 1888 became the founder and chief of the laboratory for physical chemistry. In 1896 he accepted a call to Berlin as regular honorary professor. His work was epoch making in the development of physical chemistry. The most important of his scientific works are his new thory of solution in which the identity of the gas pressure and the osmotic pressure was demonstrated and a new method of measuring the molecular weight was discovered, and his investigations of the spatial relations of the atoms, with which he laid the foundations of stereochemistry. Also for medicine his work on osmosis has been most fruitful in advancing our understanding of the processes of metabolism. Van 't Hoff was a member of the academy of sciences, and most of the academies of the world, knight of the order "pour le mérite" and recipient of one of the Nobel prizes.

Bill Against Quackery

The committee of the Reichstag appointed to consider the bill for restriction of unqualified practice of medicine, contrary to expectation is deciding on considerable concessions which weaken the original draft of the bill. In fact, the conservatives and the representatives of the center are inclined to support all kinds of quackery, and especially the form of mystical treatment (cure by prayer, by laying on of hands, rubbing, magnetism and the like), and express views that often unintentionally have a ludicrous effect and show that scientific ideas are not very widespread even among intelligent people. One member belonging to the center group stated that he had lately come to question whether magnetism might not actually prove a curative agent. As evidence, he brought a long letter from a young lawyer in which the author averred that by means of therapeutic magnetism he had been enabled to pass his examination for the bar, and that he had also been cured of a nervous affection, so that he was able to marry. Another assured the committee that a person in high position has recommended as a remedy against epilepsy the pulverized feces of a still virgin billy goat. Hence it is not strange that the original bill is weakened and that magnetism has been separated from the class of forbidden mystic curative measures. Meanwhile, one may cherish the hope that the essential part of the bill will be accepted, and that some good will be secured for the public health so far as it suffers from quackery.

A University at Frankfort

For many years those interested at Frankfort-on-Main have been endeavoring to expand the present medical and other institutions into a university. On the part of the government there is no great tendency to increase the number of universities, and it must be admitted that Frankfort does not possess favorable conditions for a new foundation. The university of Marburg and that of Giessen are situated in the near vicinity and would surely be injured by the new university. In large cities overcrowding of the lecture halls soon manifests itself, so that instruction suffers, and this condition would very probably soon be the rule at Frankfort. To be sure, the consent of the government may be facilitated by the circumstance that Frankfort would furnish the means for founding and supporting the university institutions. These would not need to be much increased, at any rate in the medical field, as the most necessary teaching places for this faculty are already provided in the municipal hospitals, in the "Georg-Speyer house," in the institute for experimental therapy, in the Edinger Institute, etc. The proposition submitted by the city government has only three university departments in view: law, philosophy and medicine.

New Bill on Cremation in Prussia

As I mentioned in a previous letter, the opposition in religious circles to the legal permission for cremation in Prussia is to be disregarded by the government, and a bill for its legalization has been very lately introduced into parliament. According to the bill, cremation will be permitted only in establishments licensed by the national police. The permission may be revoked if the arrangements do not correspond to technical requirements, or if a suitable room for the reception of corpses is not provided, or if there are objections on the part of the police. The cremation can take place only when the following conditions have been complied with: an official death certificate, an official medical certificate of the cause of death, proof that the deceased has ordered the cremation of his body, and a certificate of the local police authorities at the place of death that there are no objections to cremation, and especially that there is no suspicion that the death was due to crime. The order is effective only if the deceased was 16 years of age, and it cannot be made by a repesentative. A necropsy is to be held if one of the attending physicians considers it necessary in order to establish the cause of death. Penalties are provided for the transgression of this and other provisions. In the prologue of the bill it is pointed out that the objections to cremation from the standpoint of justice, and especially of criminal law, are no longer of great importance in the present state of medical or chemical science, while the interests of religion will not be materially affected by the sanction of cremation. The bill will undoubtedly be strongly opposed by the numerous orthodox representatives in the Prussian parliament, who are especially among the conservatives and the center, but it is to be hoped that the measure will finally be passed.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, March 13, 1911.

High Morbidity and Mortality in Vienna

The health report for the first part of the year 1911 contains unpleasant news for the inhabitants of this city. The percentage of diseases and deaths has not been so bad for more than twenty years. The present epidemic of influenza is responsible for these conditions. The last epidemic was in 1889, when the mortality was 16 per cent. Since then we have had only occasional outbreaks. This winter, however, there were more than 19,000 persons laid up at the same time—at least so many have been reported by the physicians. Apart from influenza, other epidemic diseases were also prevalent during January and February, although they were all of a mild type. The doctors practicing among that part of the population which is entitled to free medical aid, have reported 335 cases of scarlet fever, 202 of diphtheria, fourteen cases of typhoid fever, 113 of erysipelas, 519 of measles, 160 of pertussis, 335 of varicella, and 227 of parotitis. There were 851 cases of fresh infections of tuberculosis and scrofulosis reported, while 1,214 persons of this class suffered from fresh disease of the alimentary canal. There died in this month of January 3,493 persons, against 2,915 in December last, and 2,790 in January last. The increase of deaths was due to influenza, as manifested by the numerous deaths caused by diseases of respiratory organs; 437 more than last year at the corresponding time. The distribution of deaths among the two sexes was equal. The report for the first week of March, however, shows that a marked and definite improvement, consequent on the improved weather, has taken place already.

Protection of Sick Children in Hungary

The present condition of the sanitary and charitable institutions for diseased children is far from satisfactory. The comparison with other countries shows how backward Hungary is in this respect. There are only ten children's hospitals, with 850 beds, at the disposal of the physicians, for a population of 20,000,000! There is not a single sanatorium for tuberculous children, while there are forty such institutions in Germany. Only 100 cripples in Hungary against 3,000 in Germany are cared for in special houses, where they learn to work and earn part of their living. Even worse conditions prevail as regards deaf mutes and blind children; although there are more than 6,000 such individuals in the kingdom, only a few hundred are looked after in a regular way. Equally bad are the provisions for idiotic and mentally defective children. Merely four small homes and now and then a class on nursing of such patients represent the entire social care of the state for its defective offspring.

Foot-and-Mouth Disease in Austria

During this last autumn and winter foot-and-mouth disease was prevalent among the cattle in Austria, and a large percentage of the animals had to be killed. Naturally, the quality and quantity of the milk-supply for the capital was severely handicapped by these conditions, and the supply of meat, too, was restricted. The health authorities took in time the necessary precautions to prevent a spread of the infection to human beings. But in spite of all care, sporadic cases appeared, and even yet a case is reported now and then. As a rule, the patients are affected only in a mild degree, while the animals suffer severely. The mode of transmission to the persons could not be ascertained, but it is safe to assume that milk and butter are responsible for it. It may be mentioned, by the way, that the first authentic case of this disease this year was in the wife of a medical man. Adults chiefly were the victims this time, and no fatal case was reported.

Marriages

JAMES H. GOAD, M.D., Ellston, Ia., to Miss Rosa Watts of Ross, Ind., March 16.

GLENN WHEELER, M.D., and ANNA MARIE REGAN, M.D., both of Portland, Ore., March 15.

BENJAMIN SPAFFORD BARNES, M.D., Shenandoah, Ia., to Miss Pansy Mincer of Hamburg, Ia., March 9.

BOYD T. WILLIAMS, M.D., to Mrs. Virginia Bradley, both of Hudson, Wis., at St. Paul, Minn., March 11.

Deaths

William Palmer Peirce, M.D. New York University, New York City, 1852; formerly a member of the American Medical Association, and National Association of Railway Surgeons; vice-president of the Illinois State Medical Association in 1875; surgeon of the Eighty-Eighth Illinois Volunteer Infantry, and later chief surgeon of the First Brigade and Second Division, Fourth Army Corps during the Civil War; a member of the Illinois House of Representatives in 1869, and of the State Senate in 1872; mayor of Hoopeston in 1889 and 1890; local surgeon of the Lake Erie and Western Railway, and a member of the local board of pension examining surgeons; died at his home in Hoopeston, February 20, from diabetes, aged 79.

James Milton Peck, M.D. Vanderbilt University, Nashville, Tenn., 1882; of Arlington, Ky.; a member of the American Medical Association; and formerly president of the Carlisle County and Southwestern Kentucky medical societies; and vice-president of the Kentucky State Medical Association; health officer and referee for Carlisle County; died in Riverside Hospital, Paducah, March 14, from abscess of the liver and general sepsis, following an operation for appendicitis, three months before, aged 53.

Edward Fiske Ashley, M.D. Yale University, 1900; a member of the American Medical Association; bacteriologist of the Quarantine Hospital and assistant to the health officer of the port of New York; contracted cerebrospinal meningitis while making autopsies on the infected steerage passengers of the steamers *Patras* and *Martha Washington*, and died from the disease, at Swinburne Hospital, New York Harbor, March 21, aged 34.

Benjamin Anthony Plant, M.D. University of California, San Francisco, 1886; formerly an official of the health department of San Francisco; surgeon of the Pacific Mail Steamship Company for two years; and for a like period resident physician at the state penitentiary, Folsom; division surgeon of the Southern Pacific System; died at his home in Santa Cruz, February 16, from bronchopneumonia, aged 45.

Isaiah Baker Bolton, M.D. Hahnemann Medical College, Philadelphia, 1873; a veteran of the Civil War; formerly chairman of the board of health and city physician of Newburyport, Mass.; died at his home in Los Angeles, Cal., January 11, from septicemia, due to pyothorax, following a pleurisy with effusion nine years before, aged 66.

William Witry Jungels, M.D. Dearborn Medical College, Chicago, 1905; formerly a member of the American Medical Association; and an ambulance surgeon of Chicago; who moved to Dubuque, Ia., six months ago; died in an ambulance in that city, while being taken to Mercy Hospital, March 13, from nephritis, aged 33.

Charles Avery Hart, M.D. Western Pennsylvania Medical College, Pittsburg, 1899; a member of the Butler County (Pa.) Medical Society; died suddenly in Butler, March 14, from heart disease, aged 33. Butler County Medical Society, at its meeting, March 14, adopted resolutions of sympathy and regret.

Thomas Kerr McKee, M.D. Medico-Chirurgical College of Philadelphia, 1895; of Grove City, Pa.; a member of the Medical Society of the State of Pennsylvania; for two years a practitioner of Tulsa, I. T.; died in the West Penn Hospital, Pittsburg, Pa., February 5, from acute nephritis, aged 52.

Henry A. Rodebaugh, M.D. Starling Medical College, Columbus, O., 1875; of Columbus; a member of the American Medical Association; and formerly medical director of sanatoria at Marysville and Columbus; died in the Lawrence Hospital in that city, March 17, from disease of the kideny, aged 55.

Raymond W. Brown, M.D. University of Pennsylvania, Philadelphia, 1909; intern in the Hudson Street Hospital, New York City; died, March 24, from cerebrospinal meningitis, contracted, it is believed, while combating the disease recently brought to New York City on a Greek steamer, aged 25.

Robert David Craighead, M.D. Indiana Medical College, Indianapolis, 1871; for fourteen years house physician at Dr. Strong's Sanitarium, Saratoga Springs, N. Y.; and afterward one of the proprietors of Craig Hall, Atlantic City, N. J.; died in that city, March 11, from pneumonia, aged 63.

John B. Richmond, M.D. Jefferson Medical College, 1852; surgeon of the Twenty-Seventh New Jersey Volunteer Infantry during the Civil War; and afterward president of the Hibernian Fire Insurance Company; died at his home in Newark, N. J., March 12, from heart disease aged 81.

Charles Howard Bradley, M.D. Harvard Medical School, 1882; a member of the American Medical Association; formerly president of the Las Vegas (N. Mex.) Medical Society; for fifteen years a resident of Las Vegas; died at his home, March 3, from pneumonia, aged 52.

Nathan A. Foster (license, Missouri, 1883); for more than fifty years a practitioner of Ralls county; who was tendered a banquet by the Ralls County Medical Society, of which he was the oldest member, a few months ago; died at his home in Center, March 10, aged 84.

Charles Salter Wheeler, M.D. University of Vermont, Burlington, 1879; a member of the American Medical Association, and for several years a member of the state pension board; died at his home in Flushing, Mich., March 10, from cirrhosis of the liver, aged 54.

Raymund H. Phillimore, M.D. McGill University, Montreal, 1893; a district physician of Montreal; medical inspector of schools; and surgeon-lieutenant-colonel Seventh Hussars Canadian Militia; died recently in Montreal, from cancer of the throat, aged 53.

Peter J. Roebuck, M.D. University of Pennsylvania, Philadelphia, 1860; a member of the American Medical Association; for two years state senator; president of the Farmers National Bank of Lititz, Pa., died at his home, March 9, from pneumonia, aged 73.

Charles Wheeler McConnell, M.D. University of Pennsylvania, Philadelphia, 1897; a member of the American Medical Association, and pathologist to Altoona Hospital; died at his home in that city, March 12, from cirrhosis of the liver, aged 40.

James Milton Foster, M.D. Berkshire Medical College, Pittsfield, Mass, 1852; for nearly half a century a practitioner of Wilbraham, Mass.; a member of the school committee for several years; died at his home, March 17, from heart disease, aged 82.

J. W. Bennett, M.D. Hospital Medical College, Eclectic, Atlanta, 1910; of Augusta, Ga., was thrown from his buggy, March 13, in a runaway accident, at North Augusta, and died a few minutes later in the Margaret Wright Hospital, Augusta, aged 46.

Frederick Clinton Taylor, M.D. Cleveland College of Physicians and Surgeons, 1891; of Cleveland; a member of the American Medical Association, and a member of the staff of the Lutheran Hospital; died in Biloxi, Miss., March 9, aged 41.

Thomas Jefferson Kelley, M.D. Medical College of Georgia, Augusta, 1881; Bellevue Hospital Medical College, 1884; of Tennille, Ga., in a quarrel over the disciplining of his son, by a school teacher, March 10, was shot and instantly killed, aged 50.

Joshua Way, M.D. George Washington University, Washington, D. C., 1859; for many years a practitioner in Monroe and Bellevue Counties, O.; died at the home of this daughter in Woodsfield, March 9, from carcinoma of the liver, aged 73.

John Bryan Ward Nowlin, M.D. Jefferson Medical College, 1857; surgeon in the Confederate army during the Civil War; for forty years a practitioner of Nashville, Tenn.; died at his home in that city, March 3, from influenza, aged 74.

Alexander Fekete, M.D. Washington University, St. Louis, 1854; assistant surgeon and surgeon of the Fifth Missouri Cavalry during the Civil War; postmaster of East St. Louis, in 1889; died at his home, February 28, aged 83.

John Henry Hieber, M.D. Cincinnati College of Medicine and Surgery, 1871; a hospital steward of volunteers during the Civil War; died at his home in Pittsburg, Pa., March 11, from enlargement of the liver and spleen, aged 67.

Cortland Butler Rockwell, M.D. Chicago Homeopathic Medical College, 1883; of Chicago; who served in the Navy during the Civil War; died in a sanitarium in Kenosha, Wis., March 16, from valvular heart disease, aged 69.

John Henry Sackrider, University of Buffalo, N. Y., 1878; a member of the Medical Society of the State of New York, and health officer of East Randolph; died at his home in that place, March 12, from neuritis, aged 63.

Maurice Munker, M.D. College of Physicians and Surgeons, New York City, 1907; of New York City, died at the home of his parents in Steubenville, O., March 4, from septicemia due to an operation wound, aged 27.

Jones B. Hargrove, M.D. University of Alabama, Mobile, 1885; of Natchitoches; while en route to a sanitarium in Shreveport, died on a Louisville and Arkansas train, March 10, from malarial fever, aged 46.

Harry Burton Kuhns, M.D. Western Pennsylvania Medical College, Pittsburg, 1896; a member of the Medical Society of the State of Pennsylvania; died at his home in Neale, March 5, from tuberculosis, aged 45.

Hosias Schiemann, M.D. Universities of Kasan and Dorpat, Russia, 1889; of New York City; died in Mount Sinai Hospital, March 10, from myocarditis following a compound fracture of the femur, aged 45.

Stephen A. Ireland, M.D. Starling Medical College, Columbus, O., 1884; a member of the American Medical Association; died at his home in Washington Court House, O., January 25, from pneumonia, aged 62.

Robert Silvester Kelso, M.D. Rush Medical College, 1864; a member of the American Medical Association; a veteran of the Civil War; died at his home in Joplin, Mo., March 12, from influenza, aged 76.

Alexander R. Gray, M.D. Jefferson Medical College, 1855; a surgeon of volunteers during the Civil War; died in his room in the Jenkintown House, Jenkintown, Pa., March 12, from heart disease, aged 78.

Frank A. Van Sickle, M.D. Detroit (Mich.) College of Medicine, 1892; a member of the American Medical Association; died at his home in South Frankfort, Mich., March 10, from septicemia, aged 46.

Laura Cowgill Bates, M.D. Northwestern University Woman's Medical School, Chicago, 1885; formerly of Chicago; died at her home in Pasadena, Cal., March 15, from cerebral hemorrhage, aged 62.

John L. Witt, M.D. St. Louis College of Physicians and Surgeons, 1890; (license, Iowa, 1886); for many years a practitioner of Logan, Ia.; died in a hospital in St. Louis, March 3, aged 56.

Columbus V. Massey, M.D. American Medical College, Eclectic, St. Louis, 1878; a member of the American Medical Association; died at his home in Chicago, March 20, from heart disease, aged 62.

Harrison Andrew Lyding, M.D. Rush Medical College, 1910; of Chicago; an intern in Michael Reese Hospital; died in that institution, March 20, from scarlet fever contracted from a patient, aged 23.

Edwin Samuel Howe, M.D. University of Vermont, Burlington, 1880; formerly supervisor of Blackbrook, N. Y.; died at his home in Au Sable Forks, N. Y., March 4, from heart disease, aged 55.

Lee R. Ashley, M.D. University Medical College of Kansas City, Mo., 1897; a member of the Kansas Medical Society; died at his home in Pleasanton, February 8, from typhoid fever, aged 38.

Joel Allen (license, years of practice, Illinois, 1877); surgeon of the Seventy-Seventh Illinois Volunteer Infantry during the Civil War; died at his home in Pontiac, March 9, from influenza, aged 83.

Arthur John Perry Howe, M.D. Long Island College Hospital, Brooklyn, 1909; house physician of St. Mary's Hospital, Hoboken, died at his home in Brooklyn, March 18, from heart disease, aged 27.

John V. Baird, M.D. Eclectic Medical Institute, Cincinnati, 1892; for two terms a member of the Indiana legislature; died at his home in Albany, March 12, from cerebral hemorrhage, aged 60.

Ernest McCue Thrift, M.D. University College of Medicine, Richmond, 1898; a member of the Medical Society of Virginia; died at his home in Madison, March 6, from pneumonia, aged 37.

Joseph L. Brown (license, Washington); a pioneer practitioner of Tumwater where he located in 1879; died at the home of his daughter at Black Lake, Olympia, Oct. 5, 1910, aged 82.

S. Albert Fishblate, M.D. Eclectic Medical College of the City of New York, 1879; of Pittsburg; died at the home of his sister in that city, February 23, from locomotor ataxia, aged 55.

William Thomas Masterson, M.D. Louisville (Ky.) Medical College, 1890; of Birmingham, Ala.; died at the home of his sister in Oakman, Ala., March 17, from cerebral hemorrhage, aged 55.

John W. Nelms, M.D. Southern Medical College, Atlanta, 1889; for twelve years sheriff of Fulton County, Ga.; died suddenly at his home in Atlanta, February 28, from heart disease.

Edwin Franklin Burkert, M.D. Medical College of Ohio, Cincinnati, 1884; of Dayton, O.; died in the Dayton State Hospital, Sept. 21, 1910, from acute confusional insanity, aged 53.

Daniel C. Badgeley (license, years of practice, West Virginia); a practitioner of Simpson for more than a quarter of a century; died at his home, March 5, from cancer, aged 80.

Brewerton Munro Lebby, M.D. Medical College of the State of South Carolina, Charleston, 1860; died at his home in Sumter, S. C., Sept. 4, 1910, from laryngitis, aged 77.

Flinn Browning B. Ilderton, M.D. Medical College of the State of South Carolina, Charleston, 1881; died at his home in Sum merville, S. C., Dec. 13, 1910, from pneumonia, aged 56.

Samuel Hamilton Frazer, M.D. Eclectic Medical College of the City of New York, 1879; formerly of Newark, N. J.; died in Saratoga Springs, N. Y., February 24, aged 67.

Samuel Mauffette, M.D. Laval University, Montreal, 1903, of Montreal, died in the Hôtel Dieu, Montreal, in October, 1910, from the effects of gunshot injury, aged 32.

Charles Sedgewick Rounsevel, M.D. Hahnemann Medical College, Philadelphia, 1882; died at his home in Nashua, N. H., Nov. 7, 1910, after a surgical operation, aged 71.

Emily Pardee-Disbrow, M.D. New York Medical College and Hospital for Women, New York City, 1875; died at her home in South Norwalk, Conn., Nov. 30, 1910, aged 67.

David W. Jones, M.D. Eclectic Medical College of Pennsylvania, Philadelphia, 1870; of Hagerstown, Md.; died at the Bellevue Home, in that city, March 4, aged 84.

Martin H. Cassell, M.D. Jefferson Medical College, 1868; a veteran of the Civil War; died in his apartments in Davenport, Ia., March 18, from heart disease, aged 65.

Millard F. Brown, M.D. Indiana Medical College, Indianapolis, 1873; an early resident of the town of Lenox, Ia.; died at his home in that city, March 2, aged 61.

John Wesley Filkins, M.D. Northwestern University Medical School, Chicago, 1866; of Seattle, Wash.; died in the Pasadena (Cal.) Hospital, March 7, aged 62.

Foster Fish Robinson, M.D. Kentucky School of Medicine, Louisville, 1877; died at his home in St. Louis, January 10, from valvular heart disease, aged 58.

B. Blastus Robison, M.D. Tulane University, New Orleans, 1892; died at his home in Godley, Tex., June 4, 1910, from cancer of the stomach, aged 45.

George Adelbert Walters, M.D. Rush Medical College, 1895; died at his home in Wesley, Ia., March 14, from diabetes complicated by pneumonia, aged 40.

Linn Henry Corey, M.D. University of Vermont, Burlington, 1905; died at his home in Woodstock, Vt., Nov. 27, 1910, from intestinal tuberculosis, aged 32.

Orpha Desiah Baldwin Bruce, M.D. Boston University School of Medicine, 1885; died at her home in Tampa, Fla., Dec. 10, 1910, from anemia, aged 59.

Reuben C. Hoover, M.D. Pennsylvania Medical College, Gettysburg, 1843; died at his home in Osborn, O., March 19, from cancer of the face, aged 89.

George W. Andrews, M.D. Western Reserve University, Cleveland, 1875; died at his home in Ramsey, Ill., March 10, from pneumonia, aged 59.

Maurice John Wiltse, M.D. University of Vermont, Burlington, 1898; died at his home in Burlington, March 2, from locomotor ataxia, aged 46.

John William Barry, M.D. Eclectic Medical Institute, Cincinnati, 1879; died at his home in Springfield, O., Nov. 3, 1910, from nephritis, aged 64.

John O'Ferrall, M.D. Cincinnati College of Medicine and Surgery, 1863; died at his home in Danville, Ill., March 7, from nephritis, aged 74.

Francis Sterling Mudd, M.D. Tulane University, New Orleans, 1883; died at his home in Lafayette, La., Oct. 29, 1910, aged 81.

Frederick W. Dantzler, M.D. South Carolina; died at his home near Holly Hill, June 15, 1910, from cirrhosis of the liver, aged 64.

Joseph T. Miller, M.D. Jefferson Medical College, 1871; died at his home in Hartford, Ky., March 11, from pneumonia, aged 71.

Lonzo F. Brown, M.D. Medical College of Indiana, Indianapolis, 1879; of Alamo; died in Indianapolis in November, 1910, aged 58.

Association News

THE LOS ANGELES SESSION

Mountain and Seaside Hotel Accommodations Available

Dr. H. Bert Ellis, Chairman of the Committee on Arrangements, writes that, in addition to the hotel accommodations already announced for the Los Angeles session, those who may desire to stay either at the seashore or near the mountains will be given special rates at the Hotel Maryland at Pasadena, and the Hotel Virginia at Long Beach.

The Maryland is situated in Pasadena, 9 miles from Los Angeles. It is a first-class, homelike place and special rates have been made which include transportation, both ways, via the electric lines, between Pasadena and Los Angeles. Trains run every ten minutes.

The Hotel Virginia is a fire-proof, first-class, modern hotel, directly on the beach at Long Beach, and is reached from Los Angeles via the Pacific Electric Lines by trains every twenty minutes. The run takes forty minutes.

Members and their families and friends will find either of these cities very delightful places to stay during the meeting, and with the excellent train service no inconvenience will be experienced in reaching the meetings. Accommodations should be arranged for in advance.

THE SCIENTIFIC EXHIBIT

The Outlook for this Important Feature at the Los Angeles Meeting

The remoteness of the meeting place has been in no sense discouraging to the prospect for the Scientific Exhibit, at the coming session of the Association. In this as in other phases of the prospective meeting, the western men are alert to their obligations, having already assured liberal contributions. Dr. Stanley P. Black, Los Angeles, and Dr. William Ophuls, San Francisco, are looking after prospective exhibits from the coast region. The middle west has also promised commendable patronage. Dr. William A. Evans, Chairman of the Section on Preventive Medicine and Public Health, is seeking to do what we have striven at different times to persuade chairmen of sections to undertake, viz.: to coordinate the work of the sections with that of the exhibit. They should supplement each other.

A common fallacy in the minds of those who might exhibit, is the impression that only large collections are desired. The small research exhibit to which the gold medal was awarded last year, was offered at a late hour, with a modest apology and request that it be given a little corner somewhere. Institution and society collections must necessarily occupy the most prominent place in the Scientific Exhibit, but the small individual exhibit is also important. The committee is very anxious to encourage the latter.

Certificates of honor will be given to a few of the exhibits having superior merit. Medals and cash awards will be offered as detailed below.

1. Gold medal for best research exhibit dealing with any problem in the fundamental medical sciences.
2. Gold medal for the best exhibit on the basis of general excellence, from the standpoints of care in preparation, completeness and instructiveness.
3. Cash award of $100 for the best series of not less than six original cartoons dealing with any or all of the following health problems.
   (a) Insects in the causation of disease.
   (b) Beneficent effects of vivisection.
   (c) Pure food, and adulterated or contaminated foods.

The Committee on Scientific Exhibit reserves the right to purchase any of the cartoons offered in competition, at the rate of $10 each.

Those cartoons on which the award is made, become the property of the Scientific Exhibit. Other cartoons will be returned, if so desired, to the artists submitting them.

FRANK B. WYNN, M.D., Indianapolis,
Director of the Scientific Exhibit, American Medical Assn.

The Committee on a National Department of Health

President Welch has appointed the following as the Committee on a National Department of Health:

Dr. Herman M. Biggs, New York City.
Dr. S. G. Dixon, Harrisburg, Pa.
Dr. W. A. Evans, Chicago.
Dr. J. N. Hurty, Indianapolis.
Dr. J. N. McCormack, Bowling Green, Ky.
Dr. H. P. Walcott, Cambridge, Mass.
Dr. William C. Woodward, Washington, D. C.

Dr. Welch, by action of the House of Delegates, is also a member of the committee.

A preliminary meeting of the committee was held at New York on March 25, and an organization effected by electing Dr. Welch, chairman, and Dr. Woodward, secretary. After the discussion of some preliminary matters, the committee adjourned to meet in the building of the New York City Health Department, at 10:30 a. m., Saturday, April 1.

"The Propaganda for Reform"

IN THIS DEPARTMENT APPEAR REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER MATTER TENDING TO AID INTELLIGENT PRESCRIBING AND TO OPPOSE MEDICAL FRAUD ON THE PUBLIC AND ON THE PROFESSION.

DR. BERTHA C. DAY

A Mail-Order Medical Faker Specializing on the Diseases of Women

A study of the multitude of mail-order medical fakes makes plain one fact: Few of such concerns are owned by the renegade physicians whose names adorn the stationery of the companies. Most companies of this kind are organized and capitalized by shrewd—and often unscrupulous—business men. These companies are run solely and only for profit; the health or well-being of the victim who seeks their aid is a matter of indifference. It is not the state of the patient's health that concerns these harpies, but the condition of his pocketbook; it is not his sufferings they seek to relieve him of, but his money. The business is a commercial one; pills and tablets bought by the million from pharmaceutical houses; form letters skilfully designed to imitate either hand-writing or typewriting; testimonials; lists of names of "easy marks" purchased from letter brokers; unscrupulous physicians whose incompetency has made them failures in the honorable practice of medicine and who are willing to sell their birthright of professional honor for a miserable mess of pottage—these are the stock in trade of mail-order medical fakers.

In Fort Wayne, Ind., there are two mail-order medical concerns said to be doing a large and profitable business, and to be owned and operated by one William C. Griffin, a dealer in teas, coffees, etc. These are the J. W. Kidd Co., which "treats" anything from consumption to corns and the Dr. Bertha C. Day Co., which makes a "specialty" of "diseases of women." There is another "diseases of women" mail-order fake in the same town run by a Dr. Luella McKinley Derbyshire. It is said that the Derbyshire concern used to be owned by Griffin, but was purchased by Dr. Derbyshire about 1903. From a business standpoint, it seems rather unkind for Griffin to sell out a "female specialist" mail-order business and later start a competitive house. In 1906, Dr. Derbyshire was arraigned in the Federal courts on the charge of sending obscene matter, in the form of consultation blanks, through the mails. Her defense was, according to the papers, that the blanks were the same as those which had been used by Griffin for some years before she purchased the business from him, and that she "understood that a competent lawyer had gone over the blanks and found that there was nothing unmailable in them." Dr. Derbyshire's methods of doing business are practically identical with those of Dr. Day, and her diagnoses are just as fraudulent and worthless. In a later article, we may give some space to the Derbyshire concern and also to the Kidd branch of Griffin's quackery.

DR. BERTHA C. DAY COMPANY

Dr. Bertha C. Day is the stool-pigeon for Wm. M. Griffin in operating a mail-order medical treatment for the "diseases of women." The Bertha C. Day concern advertises in those cheap and nasty magazines that are the sheet-anchor of the advertising medical faker; it also has an occasional advertisement in the less particular newspapers (Fig. 1). Bertha C. Day advertises that she is "a woman—a wife—a mother—a successful physician—a specialist on diseases of women." She puts great stress on her "long and varied experience." In a booklet entitled, "Diseases of Women and The Home Medical Guide" (Fig. 2), which she sends to those who answer the advertisement and which she claims to have written, we read:

"Her *vast experience* as a physician is only one of the qualifications she possesses . . ."

"Her training and *vast experience* as a physician enables her to do more for suffering women than any woman can who is not a physician . . ."

"During *several years* of active life *as a general practitioner* she acquired a vast amount of valuable experience that very few ever possess . . ." [Italics ours.—ED.]

These quotations—from a book written in 1909—naturally give the reader the impression that Dr. Bertha C. Day has been in practice for several years. As a matter of fact, Dr. Day graduated from the Detroit Homeopathic College in 1907 and was licensed to practice in 1908! This would indicate that however "varied" her experience may have been, it could scarcely, with truth, be called long. As the "Bertha C. Day Company" was chartered in 1908—the year that Bertha C. Day received her license to practice medicine—her "vast experience" has evidently been confined to treating people she has never seen, by means of tablets bought in million lots and prescribed on diagnoses that are both worthless and fraudulent.

THE METHODS EMPLOYED

An individual, whom we may call Mrs. X, seeing one of Bertha C. Day's advertisements, wrote for particulars about the methods of "treatment." By return mail she received a form letter in which the date and her name were filled in by means of a typewriter. The letter stated among other things:

"Before preparing the treatment for you, however, it will be necessary for me to have a more thorough understanding of your case. I am, therefore, inclosing herewith a Symptom Blank, which I will be pleased to have you fill out and return to me."

The "Symptom Blank" consisted of a number of questions to be answered. There was also a list of diseases and symptoms, and the patient was instructed to "draw a line under any of the following diseases or symptoms you have." Accordingly, Mrs. X underscored the following:

"LEUCORRHEA"
"CONSTIPATION"
"PAINFUL PERIODS"
"FEMALE TROUBLE"

On sending this in to Dr. Day, form letter No. 2 came back, containing among many other things, the statement:

"A careful diagnosis of your case shows you have *Vaginitis, Constipation, Painful Menstruation* and *Female Weakness.*"

The words we have put in italics had been filled in by means of a typewriter, having the same style and size of type and the same color ink as that used in printing the rest of the letter. How much skill and "vast experience" was necessary to make such a diagnosis from the symptom blank? The facts are, the "careful diagnosis" showed that Mrs. X was suffering from the very complaints that she had told Dr. Day she was suffering from. In other words, Mrs. X diagnosed her own case. In the same form letter Mrs. X was told:

"I have mailed you a copy of my book, 'Diseases of Women and Home Medical Guide.' Be sure to read the description of your condition on Pages *86, 32, 58, 27 and 25-47.*"

THE FREE AND SPECIAL TREATMENTS

Here again, the figures we are italicizing were the only part of the paragraph that had been typewritten; the rest was printed. The same mail that brought this letter also brought a "free trial treatment," supposed to last three days and also a "special treatment" for which she had not asked. Mrs. X was told:

"Your case seems to be of long standing and you really should have the complete Course of Treatment at once, if you are to be completely cured. As I want to do everything possible for you, I have prepared a 'Special' course of treatment for you and am sending it, postage paid, in the same package with the free remedies."

The free treatment consisted of:

Six purple, triangular, coated tablets marked "C."
Three red, triangular, coated tablets marked "D."
Three pink, circular, coated tablets marked "45."
Two large, white, oval, uncoated tablets for vaginal use marked "31."
One large, soft, cylindrical, vaginal suppository marked "30."

The "special treatment" received by Mrs. X consisted of six different kinds of tablets each labeled with a letter or number, prefixed with the words "Dr. Day's Private Formula:"

"No. A:" fifteen red, triangular, coated tablets.
"No. B:" fifteen lavender-colored, triangular, coated tablets.
"No. 45:" fifteen pink, circular, coated tablets.
"No. 58:" fifteen brown, circular, uncoated tablets.
"No. 14:" thirty-two, lavender-colored, circular, coated tablets.
"No. 31:" fifteen large, white, oval, uncoated tablets for vaginal use.

The probable composition of these variegated and multi-shaped tablets was determined in the following manner: In addition to her usual advertisements, Dr. Bertha C. Day also advertises that she will send "free prescriptions" to those

THE GENTLEWOMAN

Ill Women

Send Me To-day The Coupon Below And I will Help You FREE

DR. BERTHA C. DAY

I AM A WOMAN—a wife—a mother—a successful physician—a specialist in diseases of women. As a woman I have suffered and know how to sympathize with other women who suffer. As a physician I have studied the peculiar ailments of women and know how to cure them. As a friend I want to help you—and will help you Free.

A Sister's Sympathy — A Doctor's Ambition — A Woman's Generosity

SEND ME NO MONEY

Just Fill in the Coupon and Mail it to Me

Coupon for FREE Prescription and FREE Book

Fig. 1.—Photographic reproduction (much reduced) of a typical advertisement of Dr. Bertha C. Day. Note the coupon in the lower right-hand corner by means of which Dr. Day pretends to be able to diagnose a woman's ailments. The size of the original advertisement, which appeared in *The Gentlewoman*, was about 10 by 14 inches.

who will fill out and send her the blanks that accompany such advertisements. One such blank was filled out and sent in by another person giving the same symptoms as those Mrs. X was supposed to be suffering from. In reply, there were received a letter and five printed prescriptions (see also Fig. 3); each of these was numbered or lettered the same as the tablets sent to Mrs. X, except that there was no prescription for "No. 31"—the tablets for vaginal use. Incidentally, at the same time that the "free prescription" was received the express company brought a package of tablets from Dr. Day, C.O.D., $2.50. But of this more later. According to these prescriptions, the tablets "A," "B," "45," "58" and "14" have the following composition:

"A"

℞

Ext. Gentian	7½ grains.
Strychnin Sulphate	¼ grain.
Ext. Quassia	7½ grains.
Bicarb. Soda	45 grains.

"B"

℞

Strychnin Sulphate	¼ grain.
Ext. Rhubarb	15 grains.
Ext. Cascara Sagrada	15 grains.
Bicarb. Soda	30 grains.

"45"

℞

Cascarin	4 grains.
Aloin	4 grains.
Podophyllin	2½ grains.
Ext. Belladonna Leaves	2 grains.
Strychnin Sulphate	¼ grain.
Oleoresin of Ginger	2 grains.

"58"

℞

Strychnin Sulphate	1/6 grain.
Powdered Ipecac	1/2 grain.
Oleoresin of capsicum	1/12 grain.

"14"

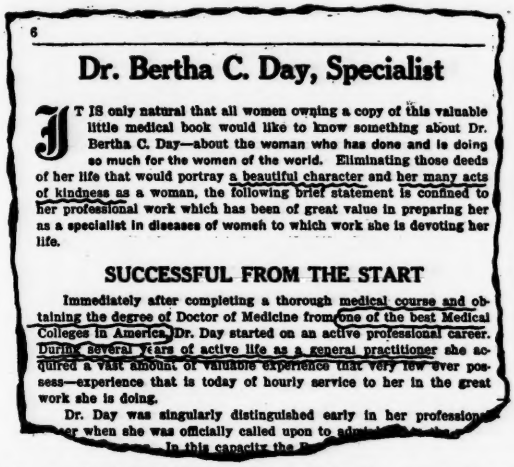
℞

Ext. Black Haw	30 grains.
Ext. Jamaica Dogwood	15 grains.
Powdered Ginger	½ grain.
Fluidextract of Pulsatilla	30 m.
Fluidextract Gelsemium	3½ m.

As has been said there was no prescription for "No. 31," but printed on the box that contained these vaginal tablets was the statement:

"Each contains 3 grains of acetanilid and ½ grain (¼ gr.?) powdered opium."

As this information was put on the box, apparently as an afterthought, by means of a rubber stamp, the lettering was


6

Dr. Bertha C. Day, Specialist

IT IS only natural that all women owning a copy of this valuable little medical book would like to know something about Dr. Bertha C. Day—about the woman who has done and is doing so much for the women of the world. Eliminating those deeds of her life that would portray a beautiful character and her many acts of kindness as a woman, the following brief statement is confined to her professional work which has been of great value in preparing her as a specialist in diseases of women to which work she is devoting her life.

SUCCESSFUL FROM THE START

Immediately after completing a thorough medical course and obtaining the degree of Doctor of Medicine from one of the best Medical Colleges in America, Dr. Day started on an active professional career. During several years of active life as a general practitioner she acquired a vast amount of valuable experience that very few ever possess—experience that is today of hourly service to her in the great work she is doing.

Dr. Day was singularly distinguished early in her professional career when she was officially called upon to administer [illegible]. In this capacity the Dr.

Fig. 2.—Photographic reproduction (reduced) of part of a page from the booklet, "Diseases of Women," "written and published by Dr. Bertha C. Day." Note the modesty of Dr. Day's self-delineation: "beautiful character," "acts of kindness," etc. Note, also, reference to "one of the best medical colleges in America." In the Carnegie report on medical education the following statement is made regarding this college: "*Laboratory Facilities:* These are wretched . . . The teaching rooms are bare except for the chairs and tables; the building is poorly kept." The same college is also grouped by the Council on Medical Education of the American Medical Association in "Class C," that is, "Medical colleges which would require a complete reorganization to make them acceptable." Note, too, the reference to the "several years of active life as a general practitioner." These words were written in 1909; Dr. Day became legally entitled to practice medicine in October, 1908! Years of experience, indeed!

so illegible that it was impossible to say whether the tablets were stated to contain ¼ or ½ grain of opium.

With the letter, notifying Mrs. X that the "special" and "free treatment" were being sent, was a page of directions for taking the medicines. The directions were printed in imitation typewriting and the "private formula" letters "A," "B," "C," "D," etc., have been filled in by means of a typewriter. The designation "No. 45," was printed instead of typewritten so that it is probable that whatever ails the patient, "Dr. Day's Private Formula No. 45" is always sent.

THE SLIDING SCALE OF PRICES

The price Mrs. X was asked for the "special treatment," was $2.00 and, as she did not send the money, Dr. Day, con-

sistently following the methods of mail-order fakers, sent a series of follow-up letters. The general object of these letters is, apparently, gradually to lessen the amount asked for the "special treatment." It was evident, however, from some of the letters sent to Mrs. X that the mailing clerks who send out these heart-to-heart "personal" talks from Dr. Day, are careless in selecting the right form-letter. In Mrs. X's case the first price asked, as has been already stated, was $2.00. In Dr. Day's third letter she says:

"As I made you a reduced price of $3.00, I hope you can remit the amount soon."

Evidently the mailing force at Dr. Day's establishment got this $2.00 patient confused with a $3.00 patient. Form letter No. 4 is one of those frankly, confidential epistles that the mail-order fraternity get printed by the hundred-thousand and sign with a rubber stamp. The amount of the bill is not mentioned in this letter, it is merely an earnest request to send the money. The next form letter, No. 5, commences:

"I am busy with my patients this morning, but I feel I must take time to write you a note . . ."

Then follows the usual farrago of sentimental nonsense about being " a woman and a mother," and having a "sympathetic feeling" for the patient and Dr. Day once more urges Mrs. X to send the money.

PRIVATE OFFICE OF DR. BERTHA C. DAY
SPECIALIST IN DISEASES OF WOMEN
FORT WAYNE, INDIANA
PRESCRIPTION BLANK

℞ No. 8

Desic. Thyreoids	gr. 15
Ex. Phytolacca Berry	gr. 30
Base qs ad	dr. 2 1/2

Misce et fiat No. xxx suppositores.
Sig: Take according to special directions.

℞ No. 58

Strych. Sulph.	gr. 1/6
Pulv. Ipecacuanhae	gr. 1/2
Oleo. Capsici	gr. 1/12

Misce et fiat No. xv tab tri. sut. cachet.
Signe: Take according to the special directions.

℞ No. 45

Cascarini	gr. 4
Aloini	gr. 4
Podophylli	gr. 2 1-2
Ext. Belle. Lvs.	gr. 2
Sulph. Strych.	gr. 1/4
Olei Zingiberi	gr. 2

Misce et fiat No. xv pilulae aut tab trit.
Signe: Take according to special directions.

Fig. 3.—Photographic reproduction (reduced) of three prescriptions printed in imitation typewriting and sent by Dr. Bertha C. Day to a person supposed to be suffering from obesity. Notice that prescription No. 8 directs that the drugs be compounded *in the form of a suppository*, yet the directions sent by Dr. Day state that they must be "prepared *in tablet form*," one tablet to be taken before breakfast and one after dinner!

"Something must be done at once—we must come to an understanding. Your health is being neglected . . ."

Thus commences form letter No. 6, and something *is* done: Dr. Bertha comes down to $1.00.

"Send me a $1.00 bill and the special fifteen-day treatment is yours."

This $1.00, the patient is told, "will pay in full for the $3.00 course . . . "—which was originally offered in the first letter for $2.00. As a slight reward for giving the "cut rate" for her tablets of many colors Dr. Day asks that the patient will send in a number of names and addresses of "others who need treatment." Presumably, this is a cheaper way of getting a mailing list, than by purchasing the names of a letter broker.

According to the opening sentence in form-letter No. 7:

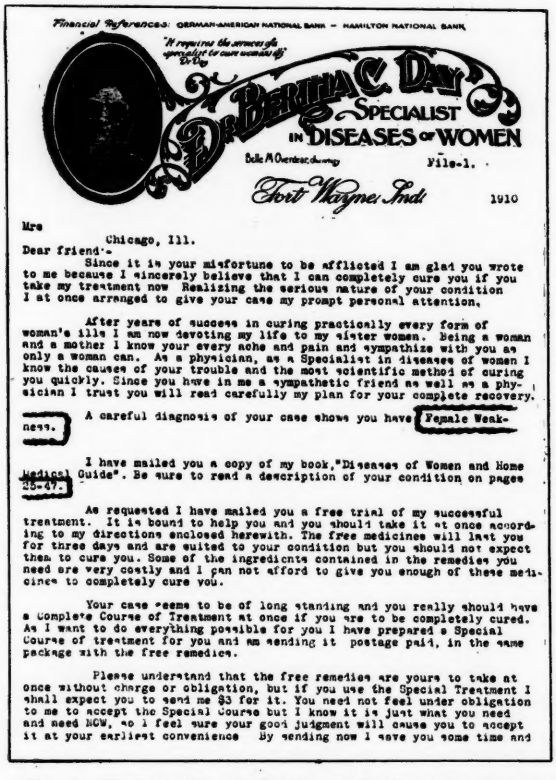
"This is the MOST IMPORTANT letter I have ever written to you . . . NOW LISTEN: If you can't see your way clear to accept the Special Treatment on the low terms I quoted you, simply send $1.50 and start using the remedies."

From this series of follow-up letters, which is but one of several series of a similar nature that we have on file, it will be seen that the price for this special treatment starts at $2.00, rises to $3.00, falls to $1.00 and closes at $1.50. To those who are familiar with the "ways that are dark and tricks that are vain" of mail-order medical concerns, this fluctuation in the market price of the "special treatment" merely means that the form-letters have been carelessly mailed. To the unsuspecting females who think that these letters are confidential personal communications to them, and to them alone, the variations in price must be disconcerting.

TWO OTHER DIAGNOSES

The following brief note was sent by another individual, whom we may call Mrs. Y, to Dr. Bertha C. Day:

"Dear Doctor:—Will you please write and tell me about your cure for female trouble?"


Financial References: GERMAN-AMERICAN NATIONAL BANK — HAMILTON NATIONAL BANK

"It requires the services of a specialist to cure scientifically"

Dr. Bertha C. Day
SPECIALIST IN DISEASES OF WOMEN

Belle A. Overholser, Attorney — File-1.

Fort Wayne, Ind. 1910

Mrs
Chicago, Ill.

Dear friend:—

Since it is your misfortune to be afflicted I am glad you wrote to me because I sincerely believe that I can completely cure you if you take my treatment now. Realizing the serious nature of your condition I at once arranged to give your case my prompt personal attention.

After years of success in curing practically every form of woman's ills I am now devoting my life to my sister women. Being a woman and a mother I know your every ache and pain and sympathize with you as only a woman can. As a physician, as a Specialist in diseases of women I know the causes of your trouble and the most scientific method of curing you quickly. Since you have in me a sympathetic friend as well as a physician I trust you will read carefully my plan for your complete recovery.

A careful diagnosis of your case shows you have Female Weakness.

I have mailed you a copy of my book, "Diseases of Women and Home Medical Guide". Be sure to read a description of your condition on pages 25-47.

As requested I have mailed you a free trial of my successful treatment. It is bound to help you and you should take it at once according to my directions enclosed herewith. The free medicines will last you for three days and are suited to your condition but you should not expect them to cure you. Some of the ingredients contained in the remedies you need are very costly and I can not afford to give you enough of these medicines to completely cure you.

Your case seems to be of long standing and you really should have a Complete Course of Treatment at once if you are to be completely cured. As I want to do everything possible for you I have prepared a Special Course of treatment for you and am sending it postage paid, in the same package with the free remedies.

Please understand that the free remedies are yours to take at once without charge or obligation, but if you use the Special Treatment I shall expect you to send me $3 for it. You need not feel under obligation to me to accept the Special Course but I know it is just what you need and need NOW, so I feel sure your good judgment will cause you to accept it at your earliest convenience. By sending now I save you some time and

Fig. 4.—Photographic reproduction (reduced) of one page of a two-page letter sent by Dr. Day in answer to a brief note, asking for particulars about her "cure for female trouble." Practically all of this letter was printed; the name and address and "diagnosis" only, being filled in by means of a typewriter. The words and figures in paragraphs three and four, around which heavy lines have been drawn, were the words that were filled in on the typewriter.

This is all that was written, yet the information was sufficient for the diagnostic powers of Dr. Day, who wrote back:

"A careful diagnosis of your case shows you have *Female Weakness*." (See Fig. 4.)

Here again the words we have italicized were filled in by means of a typewriter; the rest of the letter was printed in imitation typewriting. The regulation "free treatment" was also sent to Mrs. Y, together with a "special treatment." The price asked for the "special treatment" in this case was $3.00. It seems, then, that when Dr. Day puts up a "special treatment" for "female weakness, vaginitis, constipation and painful menstruation" she can do it for $2.00; when, however, she

makes a "special treatment" for "female weakness" alone, it costs $3.00. The principle on which this business is run, apparently, is that the less you have the matter with you, the more it costs to cure you.

The series of follow-up letters sent to Mrs. Y also shows as much lack of care in picking out the correct form-letter as did the series sent to Mrs. X. As Mrs. Y did not send the $3.00 asked for, form letter No. 2 came in due time, stating:

"As I made you a reduced price of $2.00, I hope you can remit the amount soon."

Here, apparently, is the form-letter that should have been sent to Mrs. X, who really was offered the treatment in the first letter for $2.00.

A DIAGNOSIS OF RHEUMATISM

Still another letter was written as follows:

"Dear Doctor:—Will you please write and tell me if you can do anything for rheumatism?"

By return mail came the stock diagnosis letter with the statement:

"A careful diagnosis of your case shows you have *rheumatism, and associated conditions.*"

A subsequent mail brought the inevitable "free treatment" and the accompanying "special treatment." Here again the carelessness of the detail work done in the Bertha C. Day office was apparent. In addition to the box of variegated pills that composed the "special treatment," there was sent a collapsible metal tube filled with an ointment smelling strongly of phenol (carbolic acid). This was marked "Dr. Day's Private Formula No. 26." The sheet of directions made no reference to Formula No. 26, but it did contain a statement regarding a "Formula No. 48." No preparation having the latter number was sent. The directions pasted on the tube of ointment read:

"Unscrew cap of tube, then screw nozzle in its place. Each evening wash the parts with soap and water. Insert nozzle into the rectum, forcing a small portion of the ointment out of the tube by pressing the lower end."

No nozzle accompanied the package and had it done so, it would be a little difficult to see how a person was going to be cured of rheumatism by injecting a carbolic acid ointment into the rectum. The facts were, of course, that the mailing force at Griffin's establishment had confused a "treatment" for "piles" with a "treatment" for "rheumatism." It is interesting to speculate what may have happened to the poor sufferer from piles who received the rheumatism treatment with directions to inject it into the rectum.

ANOTHER DIAGNOSIS AND A MODIFIED METHOD OF TREATMENT

As has already been shown, Mr. Griffin sometimes modifies his method of doing business. An advertisement appears in which Dr. Day offers to send "Priceless Prescriptions for the Cure of Female Diseases Free to Any Woman." Part of the advertisement is a coupon (Fig. 1) containing a list of diseases and symptoms and the patient is asked:

"Make a cross (X) in front of your trouble. Two crosses (XX) in front of the one from which you suffer most."

One of these coupons was sent in to the company with the word "obesity" marked. By return mail came one of Dr. Day's famous diagnosis letters, stating among other things:

"A careful diagnosis of your case shows that you have *Obesity and associated conditions.*"

"Obesity and associated conditions" were the four words in the whole letter that were filled in by means of a typewriter; the balance of the letter, with the exception of the name and address of the patient, was printed, in the usual imitation of typewriting. With this letter three prescriptions were sent. These prescriptions, printed in imitation typewriting on prescription blanks headed, "Private Office of Dr. Bertha C. Day," were an atrocious mixture of incorrect Latin and poor English, as may be seen by the photographic reproductions (Fig. 3).

After reading all that accompanied the prescriptions the cloven hoof became evident:

"There are so many reasons why I am afraid you will not be able to get these prescriptions filled properly and at the right price, that I have decided . . . to supply you with the medicines you need direct from my office . . .

"In order that you may begin treatment at once, to save you the trouble of ordering from me or of trying to have the various prescriptions filled, I have decided to send you the Special Treatment you need by Express, prepaid. I have paid the express charges so that all you have to pay the Express Co. is the reduced price of $2.50 which I am making to you."

Dr. Day then says that the patient is under no obligation to accept the package, but, as a physician, she feels it her duty to send the medicines at once. Furthermore, the $2.50 "also entitles you to my professional advice."

The victim, in this case, did not bite and received the usual series of follow-up letters urging her to take the package from the express company and to remit the money. Finally the patient wrote that she had not taken the packages from the express office because she could get the prescriptions filled at the drug store so much cheaper. Back came a letter, stating that this course was "perfectly satisfactory" to Dr. Day. How very unsatisfactory it was to Mr. Griffin's company is evident from the following paragraph:

"I wish to warn you against trusting this work to a careless and unprincipled druggist who might substitute drugs similar but inferior to those called for in the prescription."

Further:

"Be sure that all the medicines to be used internally *are prepared in tablet form.* This is very important." [Italics ours.—ED.]

Not content with vilifying the druggist and accusing him of substitution and lack of principle, those fakers are bound to make the patient dissatisfied with the druggist's work however honestly done. The main prescription of the three given above calls for desiccated thyroid and phytolacca berry compounded *in the form of a suppository.* Yet these humbugs have the effrontery to insist that the patient be sure that the medicine "be prepared *in tablet form.*"

CONCLUSION

So much for the methods of the Bertha C. Day mail-order medical fake. The dishonesty of the claims, the fraudulence of the methods and the general way in which the business is conducted, are all typical of those concerns which make a business of capitalizing suffering and defrauding the sick. Could that vast army of women whose gullibility permits these frauds to flourish but learn the hollow pretense on which such businesses are founded, the mail-order medical fake would cease to exist.

There are doubtless hundreds of thousands of men and women who really believe that the skilfully printed letters sent to them by mail-order quacks are special, personal and private communications. They doubtless believe too, that the "diagnoses" which these fakers furnish have actual value. They probably believe, also, that the pills of many shapes and colors that are sent out by these concerns have some peculiar potency and value not possessed by the drugs prescribed by the family physician. They must believe all these things or the mail-order medical business would not be profitable.

Did the victims of these sharks really know that the letters are printed by the hundreds of thousands and are "filled in" by girls who have no more medical knowledge than the average school-girl would have; did they know that the "diagnoses" are always worthless and sometimes dangerous; did they know that the medicines furnished are often the cheapest of cheap drugs bought in enormous quantities from the least reputable of drug houses; did they know, too, that after they had been bled to the point where they are unwilling to part with any more money, their letters would be sold to other vampires in the same business—did they know all these things, the firms that pretend to cure diseases about which they know nothing, with drugs about which they know less, in patients they have never seen, would soon be forced into some more respectable, if less profitable, line of business.

An Unscientific Prescription

To the Editor:—There have recently been published in the department of THE JOURNAL devoted to the "Propaganda for Reform," some excellent examples of shot-gun prescriptions, accompanied by terse and appropriate criticisms.

Below, I offer an exact copy of a prescription which a patient was given by a physician practicing at a mountain resort where she visited last summer. She affirmed that it did her much good, showed it to me for its educational value, would not part with it for anything, but permitted me to take a copy. I might add that her complaint was of a slight indigestion, and that besides these wonderful powders, she was ordered a daily enema consisting of 1 dram of turpentine in 2 quarts of water, and a diet consisting of milk and weak tea to be continued two weeks. She of course credited the powders with being the curative agent.

℞

P. Ex. Nucis Vom	gr. 1/10
P. Ex. Casc. Sag	gr. iii
Salol	gr. i
Pancreatin	gr. ii
Charcoal	gr. v
Pepsini Puri	gr. iv
Sod. Bicarb.	gr. x

D. T. D. Pulv. No. xvi.
Sig. One t.i.d. p.c.

I offer this in the hope that it may serve as a text for some further remarks on "prescription writing."

M. SCHULMAN, New York.

COMMENT: The above prescription is not one to be recommended because it is an attempt to meet too many indications in the same formula. It is evident that the writer wished to give a tonic, a laxative, an intestinal antiseptic and a digestive agent. In order to meet all possible emergencies, he has introduced two digestives, one active in acid and the other in alkali. Of course, only one of these can be efficient, and as clinical experience shows that pepsin is secreted whenever acid is present, the pepsin in the prescription is superfluous. Furthermore, the prescription is an example of polypharmacy, and is to be criticized on this account, although it is not so bad in this regard. Such a combination would have a tendency to correct hyperchlorhydria, flatulence and constipation, and possibly it was given for such a purpose.

As we have frequently mentioned the desirability of making the language of a prescription correct and consistent, avoiding a hodgepodge of Latin and English, we need only add that the prescription given above has not been edited.

Correspondence

Physicians—The Supply and Demand

To the Editor:—We read now and then of the oversupply of medical practitioners in Great Britain, France, Germany and the United States. Is not this condition due to the congestion of favored localities and not to the demands of the world?

The relation of the medical profession to the movements for the spread of civilization and the development of backward regions of the earth has never been properly realized. There are as yet very few physicians appointed by civilized governments as functionaries, consuls and consular agents, but wherever they have been given official positions they have made good in an exemplary manner.

Countries imperfectly developed would benefit greatly by appointment of men with a medical training as officials in their remote districts. These men would enter fully into the life of the people, carry out sanitary regulations, keep accurate vital statistics, and would furnish reports on climates, soils, ethnology, geology and biology that would be of value to the government employing them and to the whole world.

Men of no other class are so well adapted for this work; their professional services and humane principles would insure the confidence of those placed under their supervision.

China affords an extensive field for physicians, and the great success of medical missionaries there and in India and Turkey shows that the harvest is plentiful even if the proper laborers be few. The United States furnishes a wide scope for medical men, not only in Alaska and the island possessions, but also as consular agents in South and Central America, in the Balkans, Asiatic Turkey, Persia and other unadvanced countries. The great success of Dr. Grenfell in Labrador shows what even one medical man can do, and what no one but a medical man could have accomplished.

WILLIAM P. WHERY, M.D., Fort Wayne, Ind.

What About the Medical Profession in This Country?

To the Editor:—Mr. Pritchett's article in THE JOURNAL, February 25, on criticisms of the Flexner report recalls some reflections I made at the time of reading the report. On pages 13 and 14 of the report the question of ratio of physicians to population in Europe and this country is discussed and the conclusions are based on the supposition that the same ratio of physicians to population would be sufficient for this country. Mr. Flexner's reasoning may be logical but I submit that his major premise, to wit, that this country can be served by the same ratio of physicians to population here as in Europe, is wide of the mark.

Medical attendance in European countries is a luxury, usually possible only to the better classes, at least until very recently when, for economic reasons, the state has brought it within reach of the workers in large industries to keep the latter going. The barbarous system of midwifery is still in existence among all but the highest strata of society—and the paupers at maternities. Just now, the Russian sanitarians are finding out that puerperal sepsis is as prevalent in midwife practice outside of institutions as before antiseptic days. It is beneath the dignity of a physician of continental Europe to attend an ordinary case of confinement, and it is beyond the ability of the ordinary industrial family to pay for such service.

In this country, conditions are entirely different. Our sense of humanity dictates that, in any case of confinement needing any attention beyond the good offices of the neighbor or relative female friend, the woman should have the assistance of a physician. Every American, or Americanized parturient demands it—it is a humane necessity to our women, a luxury to their European sisters. So far all industrial classes of our population outside of the slum districts and half civilized foreign quarters have been able to get this service and pay for it. And so with ordinary cases of sickness; here the masses send for the physician and are able to pay him, while among the masses in Europe the physician is not called except in extreme emergencies and the patient usually recovers or dies and no more is thought of it, except that it is an act of God.

I am not overstating it when I say that our higher standard of living demands at least twice as large a ratio of physicians to population as does Europe. The public is now demanding and paying for the services of twice as large a ratio of physicians. I am now speaking of conditions as I know them to exist in the northwest. There is no overcrowding of physicians in the northwest outside of the large cities; in fact, there are any number of good openings for men who are competent to do general practice and willing to drive out 10 or 15 miles in the country at night, any time of the year, for a reasonable fee. Now, understand, I say competent and willing to do general practice in small towns and rural districts.

I believe Mr. Flexner mentions one Johns Hopkins' graduate who settled in a rural district, and I know of a few others who could write B.A., M.A. and M.D. after their names who, have settled in rural districts, but these are exceptions that prove the rule that the man who has the time and the money to spend ten of the best years of his life to acquire a medical education does not settle in small towns to engage in general practice. The demand now existing for a competent general practitioner cannot be filled from the high-class medical graduate—for obvious reasons, psychologic, social and commercial.

Mr. Flexner has done a valuable service to the medical profession of this country by fearlessly spotting the commercial diploma mills. But his constructive medical education program will not meet the needs of this country. We have, for instance, one good medical school in Minnesota, but the records of admission to practice here show that it is wholly inadequate to the needs of the state. Happily, Chicago is near by and can help us out, and our legislature has opened the door to the osteopath to supply any possible shortage

of doctors. Mr. Flexner's Prussian idea of one doctor to every 2,000 population does not work in this country where a popular legislature and not the Kaiser's Kultus-Minister has the say in this matter.

Of late years the medical education theorist—Flexner is the type—has been raising the requirement for medical licensure to correspond with intramural conceptions. On the other hand, the public through the legislatures has been creating osteopaths and the like, to supply themselves with medical service outside of the regular profession; these two processes go on *pari passu*. The higher the professional requirement beyond a certain point—already passed in some states—the wider the doors for irregular "paths" and quackery are opened. It takes no prophet to see that if the medical theorist keeps forcing his hobby we shall soon have several legal medical professions in this country. How would it be if the general practitioner, the one who knows the needs of the people he is serving, were given a hearing on this question?

CHRISTIAN JOHNSON, M.D., Willmar, Minn.

[COMMENT:—Our correspondent apparently misunderstands the argument. Mr. Flexner did not intend to imply that the Prussian ratio was applicable to this country. In the report referred to, at the bottom of page 16 and the top of page 17, it is distinctly stated: "We are not now arguing that a ratio of 1 :1500 is correct . . . Our contention is simply that, starting with our present overcrowded condition, production henceforth at the ratio of one physician to every *increase* of 1,500 in population will prevent a shortage, for the next generation at least." And in order to avoid any possible misunderstanding, the word "increase" in the report is in italics. As to the reluctance of well-trained physicians to locate in small towns, the same is apparently true of graduates of low grade colleges. Regarding such localities, Mr. Flexner says, (p. 15) "A century of reckless overproduction of cheap doctors . . . has not forced doctors into these hopeless spots." Furthermore, Mr. Flexner makes the suggestion on page 16 that, as a last resort, possibly the best way to get good men to go to unpromising locations is for "the several states to salary district physicians in thinly settled or remote regions."—ED.]

The Plague in China

[Dr. Hiram Woods of Baltimore sends the following extract from a letter from a missionary in Paoting-Fu, China, who is supported by the First Presbyterian church of Baltimore.]

Feb. 5, 1911: We are in the midst of a siege of plague, This plague started in Harbin, Manchuria, late in November, or early in December, last year. The Chinese were very slow to take hold of it, and so it got a big start. Then other nations (Russia and Japan) said something must be done or they must interfere to stop its ravages. China, fearing lest these nations should get a greater foothold than they now have, asked for volunteers in our Union Medical College in Peking. Four men came forward to help. The Chinese also used the medical staff and the students in their two medical colleges in Tientsin. A professor from one of these colleges, Dr. Mesny, a Frenchman, went up, took plague and died, as did also one of his students.

The Chinese have been doing what they can to stop it in the original focus and in other places whence it has spread, but up to the present very little progress has been made in checking the epidemic. The medical missionary force has taken a leading part in the work everywhere, and one physician has died in Mukden, Dr. Johnson of the Scotch Presbyterian Mission. He seems to have taken every precaution, wore a respirator and covered himself well. He was a young man, very careful and conscientious, but his work of disinfection and segregation took him into crowded places.

This epidemic is not the bubonic form of plague but the pneumonic. It has been found that the greatest danger is air-borne infection; respirators are very necessary, therefore, when one comes in contact with infected individuals. Rats have been examined and no infection found in them. The government was very slow in stopping the trains, and the diesase was carried into China proper, and now it is present at many places in this province and in Shantung. Many workmen from these two provinces work in Manchuria, and when the plague broke out there they left for home. If the government had stopped the train service early, it could have prevented spread of the disease south of the government wall.

An individual only lives about two or three days, at most six, after taking the disease. There has not been a recovery in an authenticated case. A family came from Harbin to their home about 12 miles from here, and after arriving at home almost all the members were taken ill and died; other families were then taken ill. In all thirty-six persons have died in that small village. Two army physicians have gone down there to see what can be done in the way of isolating the families who have had plague and burning the houses and contents.

The officials have asked me to take charge of the sanitation of the city here and we have organized a plague prevention league. We meet every day and discuss measures by which we can prevent the plague from entering the city. Up to the present, we have had no authentic cases. Dr. Dilley of our mission in Peking, has kindly come to my assistance. He has taken charge of the hospital which we have prepared hurriedly for "suspects" and also takes the examinations of trains. We have been examining all passengers on the south-bound trains in order, if possible, not to allow the disease to spread further. We have heard of another place, 35 miles south of this city, where thirty persons have died in four villages. These villages will be examined and restrictive measures put on the migration of people. We are trying to instruct the entire police force here by daily lectures, lasting for an hour, so that if the disease should break out we will have some intelligent men to cope with it, who will know how to take a man to the hospital or a corpse to the cemetery without infecting themselves; and another batch to follow them in disinfecting houses. We are having all inns inspected twice every day so as to discover sick persons early and get them off to the "suspects" camp. We have three native doctors to help us; we ought to have fifty to do the work that should be done here to stop the ravages of plague if it gets into this city.

I have turned over my entire hospital force to the government service in this time of need, and I hope that this work with the officials may give us the opportunity to show them that we are not simply a cranky religious sect, but men who love our fellow men and serve our God, who is worthy of being their God and Savior.

I do not know when we will ever be able to do medical work, that is, to open our hospital here. Of course, if we got plague into it, we would be in a bad way, for it is said that burning is the only safe way to disinfect a building. I am afraid North China is in for a serious time for many years, and that our mission work will suffer much for this. It will be almost impossible to go to the country to work, as one would be constantly running into plague, and if this virulent form persists it means sure death to any one who takes the disease; as I have said, no one recovers. One can hardly dare to imagine the future of poor China for the next few months. The heat may stop the disease in a few months or so, or it may appear in bubonic form, when the flea season comes, and kill half the population; no one can tell. I wish America would show her friendship for this needy land now, and send out fifty sanitary engineers to cope with this awful pest, and thus save millions of lives that are worth saving. Can't you stir up President Taft or some big man to do this?"

CHARLES LEWIS, M.D., Paoting-Fu, China.
Physician in Charge, The Taylor Memorial Hospital.

The Secret Commission Evil

To the Editor:—I have read with great interest the article and editorial on "The Secret Commission Evil," in THE JOURNAL, March 11. I am glad to see the Association take such a position, as here in Kansas, commission-giving is practiced to an appalling extent. I have been offered a commission from the owner of a private hospital on the hospital fees of any patients I might send. A dentist friend of mine tells me he has been approached by a physician with a suggestion that he give a commission on patients that he might send to him, and

that this was not an uncommon practice. In Topeka, the ruling commission is 40 per cent, but one man has advanced it to 75 per cent.

In the last session of the legislature, the medical department of the university was interested in some bills which were introduced by a physician. A good friend of the institution told me that I had made a mistake in having a physician introduce any bills, as it always created a suspicion of graft and crookedness, and the members were very slow to accept it on that account.

I hardly know whether we can control this evil in Kansas or not. I have on file a letter, in reference to a statement that I made in regard to this thing, from a general practitioner which reads as follows: "I am surprised at the enclosed clipping. How many of the best surgeons in the state can you name who will not 'split the bill?' I do not know a surgeon in the state who would hog the whole thing."

I am afraid that this represents the feeling of a large percentage of physicians over the state. However, any help that you can give us in combating this evil will be greatly appreciated by at least some of us.

MERVIN T. SUDLER, M.D., Lawrence, Kans.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

JOURNALS ON SEXUAL PHENOMENA

To the Editor:—Please publish in your Department of Queries and Minor Notes the names of journals published in English or other language devoted to the study of sexual phenomena in any of their scientific aspects.

JOSEPH H. TOOMEY, M.D., Chelsea, Mass.

ANSWER.—So far as we know, the only journals devoted specifically to sexual phenomenon which are still being published are the following:

Die neue Generation, monthly official organ of the Bund für Mutterschutz, edited by Helene Stöcker, Berlin, Germany.

Sexual-Probleme, monthly, published by J. D. Sauerlanders, Frankfort on the Main, Germany.

Several others (chiefly German) have been discontinued. The transactions of several societies interested in the subject are published periodically. The transactions of the third congress of the Deutsche Gesellschaft zur Bekämpfung der Geschlechtskrankheiten are published under the title of "Sexualpädagogik."

SANITATION AND CIVILIZATION

To the Editor:—What evidence have we that our sanitary and other measures (in the broadest sense) are of ultimate value as opposed to the fatalistic neglect of such measures among Oriental nations? For example, if we reduce the number of deaths from tuberculosis, or from all infectious diseases, may not other diseases —existing or to be developed—restore a balance in this phase of evolution?

I have in mind a comparison, in a broad way, of the span of life and the mortality (per 100,000) among savage and civilized races through a period of centuries rather than years, as well as the span of life and mortality of civilized races compared with those of former times.

I have in mind also the immunity gradually acquired to diseases such as syphilis and measles (as in South Sea Islands), where such devastation occurred. I am thinking also of the law "a rise in birth-rate entails a rise in death-rate, and *vice versa*," and in a larger way "of life on a basis subsistence," according to Malthus.

H. B. FORBES, Ogden, Utah.

ANSWER.—A full discussion of the subject proposed by our correspondent would consume more space than would be profitable for THE JOURNAL to devote to it. The data as to mortality in uncivilized or partly civilized countries are not sufficiently accurate to afford a safe basis for comparison. Of course, the early infant mortality in uncivilized countries tends to the survival of strong individuals as the weak die out. This is, however, a loss, for many such individuals who are weakly in childhood grow up under favorable circumstances to become vigorous adults of great value to the state. It is amply demonstrated that civilized communities tend to increase in population to a greater extent than savage tribes, and this is largely due to hygienic progress and sanitary laws. The fact that the Indians in this country are dying out shows the operation of insanitary conditions in spite of long habituation which ought to have brought immunity and prolonged life if the theory under discussion were true. See also abstract of Prinzing's paper on this subject in the Berlin Letter, March 4, 1911, p. 682.

ETIQUETTE OF CALLS BY NEWCOMER

To the Editor:—Please give the ethics of calling for doctors locating in new territory. Should the newcomer call first on resident practitioners? Is the old custom reversed?

E. R. BARNEY, Wattsburg, Pa.

ANSWER.—Several years ago THE JOURNAL answered this question, but because of the time that has elapsed, we repeat: "It is an accepted custom for young physicians and newcomers to call on the older physicians and those of longer residence in the locality. It is a mark of courtesy and respect due from one locating in a new place. He thus announces his arrival and his desire to be recognized in professional circles and friendships." Some correspondence followed this "answer," which made it evident that this custom is sometimes confused with that which governs social relations when a family moves into a new locality.

THYROID IN HEMOPHILIA

To the Editor:—In reply to the communication of Dr. N. C. Miller in THE JOURNAL of March 18, I would like to recommend thyroid extract for his cases of hemophilia. In the *Annals of Surgery*, May, 1907, I published an account of a case cured by this drug after I had exhausted all the ordinary methods of treatment. I always give thyroid extract in cases in which I suspect a tendency to bleed or in which any such tendency is shown. Also, in cases of disturbed metabolism when the tissues are indolent thyroid gives good results.

J. TORRANCE RUGH, Philadelphia.

REMOVAL OF ADHESIVE PLASTER

To the Editor:—A little lard or hydrated wool fat (lanolin) rubbed into adhesive plaster will loosen it in a very few minutes and is much less unpleasant than gasoline or any other substance I have seen recommended in the recent discussion of this subject [Jan. 28, Feb. 25, and March 4, 1911]. Also, it can usually be found in every house.

H. R. COSTON, Birmingham, Ala.

The Public Service

Medical Department, U. S. Army

Changes for the week ended March 25, 1911.

Love, Joseph W., M.R.C., March 17, ordered to proceed from Fort Preble, Maine, to Fort Banks, Mass., for duty at that post.

Newton, Ralph W., March 17, ordered to proceed, about April 15, 1911, from Fort Revere, Mass., to Fort Andrews, Mass., for duty at that post.

Brooke, John D., and Hull, Alva R., cont. surgeons, March 11, entered into for duty as cont. surgeons, U. S. Army.

Eyster, George L., March 20, entered into for duty as cont. surgeon, U. S. Army.

The following named officers of the M. R. C. will proceed to San Diego, Cal., and report in person to the commanding general of the maneuver camp at that place for duty: First Lieutenants Alleyne von Schrader, William T. Cade, Jr., Herbert H. Sharpe, James F. Johnson, Bert R. Huntington, Harry G. Ford, Paul W. Gibson, Francis X. Strong and Robert C. McDonald.

The following named officers of the Medical Reserve Corps will proceed to San Antonio, Texas, and report to the commanding general, the maneuver division, for duty: First Lieutenants George E. Pariseau, Lauren S. Eckels, Lloyd A. Kefauver, John S. Coulter, Thomas J. Flynn, Frederick H. Foucar, Joseph L. Siner, John R. McKnight, Eugene G. Northington, Samuel S. Creighton, Robert H. Cantt, Edward C. Register, William Denton, George C. Divins, Howard Clarke, Clemens W. McMillan, Sanford W. French, Joseph O. Walkup, Horace M. Roberson, Leonard S. Hughes, Charles E. McBrayer, George B. Lake, Fred R. Burnside, Albert P. Clark, Daniel F. Maguire, Raymond W. Mills, Henry C. Maddux, Jay D. Whitham, Leo C. Mudd, Josiah H. Holland, John M. Willis, John J. Reddy, James L. Robinson, Henry C. Michie, Jr., Frank N. Chilton, Henry P. Carter, Harley J. Hallett.

Schreimer, E. R., major, March 16, reports arrival at Douglas, Ariz., with headquarters 3d Squadron and Troops I and K, 1st Cavalry.

Wolven, Homer F., D.S., March 12, returned to Vancouver Barracks, Wash., from temporary duty at Boise Barracks, Idaho.

Lynch, Charles, March 20, detailed to take charge first aid department of American National Red Cross.

Brown, Ira C., M.R.C., March 18, ordered from Fort Lawton, Wash., to Fort Douglas, Utah, for temporary duty.

Craft, Edgar D., M.R.C., March 21, relieved from duty at the Army Medical School in this city and ordered to Walter Reed General Hospital, Takoma Park, D. C., for duty.

Hemans, H. W., M.R.C., March 14, ordered to proceed from Fort Wayne to Fort Brady, Mich., for temporary duty.

Griffis, Frank C., M.R.C., March 20, ordered to proceed from Fort D. A. Russell, Wyo., to Fort Robinson, Neb., for temporary duty.

Medical Corps, U. S. Navy

Changes during the week ended March 25, 1911.

Farenholt, A., surgeon, detached from the naval hospital, Puget Sound, Wash., and ordered to the marine recruiting station, San Francisco.

Smith, W. B., P. A. surgeon, detached from the marine recruiting station, San Francisco, and ordered to the Naval Medical School, Washington, D. C., for instruction.

McCormick, A. M. D., medical inspector, commissioned medical inspector from Feb. 8, 1911.

Fiske, C. N., surgeon, detached from the Naval Medical School, Washington, D. C., and ordered to the *Georgia*.

Webb, U. R., surgeon, commissioned surgeon from Jan. 7, 1911.

Oman, C. M., surgeon, commissioned surgeon from Feb. 8, 1911.

Bachman, R. A., surgeon, commissioned surgeon from Feb. 27, 1911.

Sutton, D. G., P. A. surgeon, commissioned passed assistant surgeon from Nov. 29, 1910.

Sheehan, R. F., asst.-surgeon, detached from the Naval Medical School, Washington, D. C., and ordered to the *Minnesota*.

Eaton, W. E., asst.-surgeon, detached from the Naval Medical School, Washington, D. C., and ordered to the *North Dakota*.

Ledbetter, R. E., surgeon, detached from the naval station, Cavite, P. I., and ordered home to await orders.

Peck, A. E., surgeon, detached from the naval hospital, Canacao, P. I., and ordered to the naval station, Cavite, P. I.

U. S. Public Health and Marine-Hospital Service

Changes for the seven days ended March 22, 1911.

Cofer, L. E., asst. surgeon-general, detailed to deliver a lecture at Cornell University on "National Quarantine Measures," March 21, 1911.

Woodward, R. M., surgeon, directed to proceed to Cleveland, Ohio; Buffalo, N. Y., and Pittsburg, Pa., on special temporary duty, March 7, 1911.

Wertenbaker, C. P., surgeon, directed to proceed to Cape Charles quarantine on special temporary duty, March 17, 1911.

King, W. W., P. A. surgeon, granted three weeks' leave of absence from April 7, 1911.

Chapin, C. W., asst. surgeon, granted twenty-one days' leave of absence from March 1, 1911, on account of sickness.

Hasseltine, H. W., asst. surgeon, directed to proceed to San Francisco and report to the medical officer in command for duty and assignment to quarters.

Leake, J. P., asst. surgeon, directed to proceed to Arundel Cove, South Baltimore, Md., and report to the commanding officer of the Revenue Cutter *Algonquin* for duty.

Stevenson, J. W., A. A. surgeon, granted nine days' leave of absence from March 23, 1911.

Cumming, Hugh S., P. A. surgeon, commissioned a surgeon (recess), to rank as such from March 15, 1911.

Cofer, L. E., P. A. surgeon, commissioned a surgeon (recess), to rank as such from March 15, 1911.

Boards of medical officers were convened to meet on April 3, 1911, for the physical examination of candidates for appointment as cadet engineer in the Revenue-Cutter Service, as follows:

Baltimore.—Surgeon W. P. McIntosh, chairman; Passed Assistant Surgeon Dunlop Moore, recorder.

Detroit.—Surgeon R. M. Woodward, chairman; Passed Assistant Surgeon M. J. White, recorder.

Boston.—Surgeon L. L. Williams, chairman; Passed Assistant Surgeon G. L. Collins, recorder.

New York.—Surgeon H. W. Austin, chairman; Passed Assistant Surgeon W. A. Korn, recorder.

Philadelphia.—Surgeon W. C. Stimpson, chairman; Surgeon J. H. Oakley, recorder.

Seattle.—Passed Assistant Surgeon B. J. Lloyd, chairman; Acting Assistant Surgeon F. R. Underwood, recorder.

Milwaukee.—Surgeon J. O. Cobb, chairman; ....., recorder.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF POST-GRADUATE WORK, CONTRACT PRACTICE, LEGISLATION, MEDICAL DEFENSE, AND OTHER MEDICOLEGAL AND ECONOMIC QUESTIONS OF INTEREST TO PHYSICIANS

Newspaper Editorials on Medical Subjects

The growing interest of laymen in public health and medical questions is shown by the increasing amount of newspaper space devoted to the discussion of such subjects. We quote from a few recent editorial utterances:

Under the title of "Sectarian Legislation," the Milwaukee *Free Press* discusses, in a strong editorial, the relation of the state to the practice of medicine. Commenting on the protest made by "Christian Scientists" against the bill introduced in the Wisconsin legislature providing for the medical examination of school schildren, the *Free Press* says:

> "The protest . . . foreshadows a difference of opinion certain to become acute whenever sects become numerous enough to have an influential voice in the framing of our laws. Those who would be the last to interfere with another's religious belief will find themselves constrained to protest against regulating society in general in accordance with the Christian Scientists' construction of the laws of hygiene. For suggestions of disease are conveyed not alone by medical examinations, but by every placard marking a house where some contagious disease is quarantined, by every antispitting notice, every sanitary drinking fountain, in short by every one of the precautions through which modern science seeks to safeguard health and check the spread of disease.
>
> "Experience shows that every parasite that infests the human body (and most skin diseases are parasitic) can be conveyed from one to another; that every juvenile disease, mumps, measles, chicken-pox, scarlatina, is highly contagious; that the most deadly infections that poison the human system may be contracted by contact of one with another: and that nothing could be better calculated to communicate any of them than children's games, with the playing and romping natural to all normal children. One of the reasons why a health examination is proposed for all schools is that the healthy may not be infected by the diseased; and that obscure diseases or ailments which have escaped the child's guardians, else he would not be in school, may at once be looked to and relieved.
>
> "The other reason why school children are to be subject to examination has to do with eugenics, the new science that concerns itself with the welfare of society. Observation proves that schooling is thrown away on a sickly, a hungry, or a suffering child. Only normal pupils, well-nourished and in good health, are in condition to assimilate learning; on the others teaching is worse than thrown away. Neglected teeth, abnormal growths in nose and throat, imperfect vision and hearing have been found to have much to do with the backwardness of defective children, although most of these are easily remedied in the young, and when cured the mental deficiency frequently disappears.
>
> "That is why the state is undertaking to make education effectual by attending to the physical condition of the children, and providing in case of poverty free medical, surgical or dental treatment with intent to make them first of all healthy little animals, to the end that bodily discomfort shall not incapacitate them for mental training. This is one of the most enlightened measures ever applied to the public school system, and it would be a thousand pities to let the theories of any sect interfere with it.
>
> "At present Christian Scientists are living in safety because they are a fraction of a law-abiding community. But, supposing them in the majority, the enforcement of their views would mean that there would no longer be such a science of sanitation; we should speedily revert to the era of epidemics; small-pox, cholera, typhoid, which are now avoided in crowded cities only by stringent regulation; tuberculosis, with nothing doing to abate its ravages, would soon regain lost ground, and puerperal infection would again number its thousands of victims. Modern therapy is becoming more and more a question of the prevention and combating of infection; Christian Science denies the existence of infection; on this vital issue the two are flatly opposed. Now is as good a time as any to determine whether medical experts and men eminent in research are to be our guides in matters of health."

The Louisville (Ky.) *Courier Journal*, after commending the Kentucky State Board of Health for enforcing the laws for the protection of public health says:

> "Those laws are none too strict as they are. Indeed, under them many a man is 'practicing medicine' who ought to be practicing blacksmithing and it is only flagrant cases of quackery that can be reached by the law. . . It is not an easy work at any time but when in addition to the opposition of the mountebanks themselves, it must meet the opposition of the ignorant and credulous who are the willing victims of the mountebanks, its task is one of increasing difficulty. It is a prevailing weakness of poor human nature which makes men and women—even intelligent men and women—fall so easily the prey of charlatans in and out of the medical profession. In order to help such people the law must do it in spite of themselves, and even in the profession whose protection, as well as that of its patients, is the object of the board, there are all too many who obstruct it with petty jealousies and unworthy suspicions."

Commenting on the work of the state medical society for the advancement of public health, the Columbia (S. C.) *State* says:

> "Until comparatively recent years the medical practitioners were content to give one patient at a time such relief as lay within their power and retire, but the broader and better point of view of the medical profession now is that the state, which is to say, all the people, is their care. Quietly, without advertising or ostentation, the profession has set itself to diligent endeavors to remove the cause of disease by educating the public to the truth that the conditions in which disease germinates and flourishes ought

not to exist. . . In the building of the Panama Canal, members of the medical profession have been the field leaders. They made progress possible. A great part of the state of South Carolina must be redeemed before it can be properly and profitably used by men and women, and one can think of nothing that would more quickly redound to the prosperity and happiness of the people than the acceptance of the leadership of the doctors in their efforts to bring about this redemption, a leadership which the doctors do not seek.

"The medical profession has never been selfish. It has always been self-sacrificing but its attitude has changed in that it has assumed a responsibility to the public which formerly was confined for the most part to the individual, and the invaluable opportunity of the public is to cooperate through its intelligent laymen, with a medical campaign that would assail the fortified breeding grounds of disease as well as to remove a disease or relieve pain from the particular victim that it has seized.

"This new and splendid demonstration by the medical practitioners as yet is scarcely understood by the laity but it is going on in South Carolina and if the people have regard for their interest, commercial and industrial, as well as physical, they will help the doctors and give them heed in their far-reaching activities to prevent and drive out the illness that flesh is heir to."

The Boston *Advertiser*, commenting editorially on bubonic plague and its ravages in Asia, says:

" . . . The Massachusetts legislature has a duty to perform in making sure that the power of the State Board of Health shall be adequate and conditions favorable, for full protection of the public health. Possibly the legislature is so busy playing politics, that it cannot afford to waste much time on so trivial a subject. . . The powers of the State Board of Health are badly limited even now, as the result of agitation by commercial interests which . . . more anxious to make big profits than to keep their customers safe from contagion have pushed through former legislatures one bill after another with the idea of preventing the board's interference with the sale of products dangerous to the public health. . . It is about time for the public to take some interest in this matter. . . The public has a right to know and should know the names of the men who are trying to abolish the powers of the one board which stands between the people and the dangers of wide-spread contagion."

Discussing national health legislation, the Erie (Pa.) *Dispatch* says:

"This country certainly needs a department of health as a regular part of its national administration. This department ought to have as much power and influence as any of the departments of the cabinet. . . One of the first tasks such a department would undertake would be the prevention of the pollution of the waters of the great lakes. The great lakes are nothing but a great open sewer for all of the large cities bordering on them. . . The cities on this lower end of the lake would feel a great deal more satisfied if the matter were officially investigated and the actual truth of the situation determined by an official study of prevailing conditions by a department of the federal government. It is entirely too vital a question to leave to the surmises and hypotheses of local boards."

The Atlanta (Ga.) *Constitution* in a strong editorial on public health says:

"We are not at present adequately conserving the lives and health of the men, women and children whose sustained vigor is the final safeguard of American institutions. As was shown in the congressional debate last year . . . hundreds of thousands of people die prematurely and needlessly in America every year; millions are half-incapacitated the year round by semi-invalidism . . . Spending enormous sums on the pork-barrel, squandering millions on unjustified additions to the pension system, sinking money in battleships doomed to the junk leap . . . we neglect those factors on which perpetuity of government and prosperity in America depend—the men, women and children. Perhaps, in the course of time, some governmental department will find time to pay as much attention to eradicating disease among human beings as among cattle and hogs."

Discussing the relation of health legislation to industrial and labor problems the Omaha *Bee* says:

"The American Association of Labor Legislation . . . estimates that more than 13,000,000 cases of sickness occurring annually among industrial workers, represent a national loss of three-quarters of a billion dollars. . . It should not be necessary to reduce the loss to a money basis to obtain an attentive hearing. It should be enough simply to say that human life, without any regard to a money consideration, is being wasted by lax methods of sanitation. . . . One of the sanest and best enterprises ever undertaken in this country is the conservation of human resources. . . The people are willing to waive their claim to a protest against the seeming necessity of first resolving the question into terms of dollars and cents. . . This financial aspect may serve to arouse a lethargic public conscience to the overwhelming need of improving the conditions in which women and children work as a prime factor in their health."

Newspapers frequently criticize physicians as a class and it may have seemed to some that recently the profession was getting rather more than its share of such criticism. There has never been any question, however, as to the appreciation of the physician as an individual, as shown by the recent editorial in the Washington *Herald*:

"Of all the servants of mankind, the physician is apt to be the most abused. We criticize him and pigeonhole his bills, but at the first twinge we are jangling his bell in alarm. . . The physician is the man who must be ready always. Neither minute-hand nor hour-hand describes a time when he is not on duty. If he gets a whole night's rest, it is because the community happens to be free from aches and pains. He is the slave of telephone, night-bell, door-bell and office-bell.

"After a hard day's work, another man goes to bed with the sense of having earned his rest; but the probabilities are that the physician will be asked to respond to some one's beck and call. He is altogether a special kind of person. His illusions are few. His inside information is enormous. If now and then he wears a superior smile, forgive him. He has probably just heard some remark which he knows to be hypocritical. Again, his jokes are likely to be a bit technical, and his view of life materialistic. But if he has a brand of idealism, you can put your trust in it, for he has learned it in a hard school. He has faced the worst, and can still believe the best. If he has religion, it will be worth while, for he has wrested it out of the actual battles of good and evil in a life seen at close range.

"The lawyer we take into our confidence occasionally; the clergyman we admit to parlor and dining-room; but the doctor goes into bedrooms unannounced If what he sees there surprises him, he does not let it be known. In the healing of bodies he has opportunities for healing souls which could never come to a priest. He is the lay father confessor, regardless of creed. He always fits in. He is a safe man on committees; he can turn his hand to any public business, and, if left alone, discharges it creditably. He knows more psychology in five minutes than the philosopher in a week, yet he is the least emotional of men.

"When the lawyer is in tears before a jury, and the parson is pathetic from his pulpit, the doctor is keeping his nerve. The peculiar thing about him is that while fighting his grim and silent battle with death, without the applause of a crowd, often without pay, and sometimes without gratitude, he seems superior to all these considerations. He is responding to a higher sort of *noblesse oblige* which is almost unintelligible to the average man. Somewhere, either in this world or the next, he will reap his deserved reward."

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

DR. JOHN H. BLACKBURN, DIRECTOR
BOWLING GREEN, KENTUCKY

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Ninth Month—First Weekly Meeting

General Subject for the Month: Diseases of the Circulatory and Nervous Systems in Children

DISEASES OF THE CIRCULATORY SYSTEM

PHYSIOLOGY: Changes in circulation at birth. Pulse in infancy and childhood. Weight, size and rate of growth of heart. Physical examination of heart in infancy and childhood.

CONGENITAL HEART DISEASE

PATHOLOGY: Defect in ventricular septum, in auricular septum, pulmonary stenosis, patent ductus arteriosus, abnormal origin of large vessels. Multiple defects. Secondary lesions.

SYMPTOMS: Cyanosis, murmur, enlarged right heart. "Clubbing" of fingers and toes. Blood changes.

PROGNOSIS.

ACUTE ENDOCARDITIS

Primary or secondary. Relation to rheumatism and chorea. Symptoms and diagnosis. Treatment.

CHRONIC VALVULAR DISEASE

PATHOLOGY: Changes occurring in valve segments, secondary changes, hypertrophy and dilatation.

CLINICAL VARIETIES

MITRAL INSUFFICIENCY: Frequency, causes. Symptoms. Diagnosis.

MITRAL STENOSIS: Frequency, associated lesions. Diagnosis.

AORTIC STENOSIS: Frequency, associated lesions.

TRICUSPID INSUFFICIENCY: Secondary to other valvular lesions or to pulmonary lesions. Diagnosis.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

ARIZONA: Phoenix, April 3-4. Sec., Dr. Ancil Martin.

CALIFORNIA: San Francisco, April 4. Sec., Dr. Charles L. Tisdale, 929 Butler Bldg.

COLORADO: Denver, April 4. Sec., Dr. S. D. Van Meter, 1723 Tremont Place.

DISTRICT OF COLUMBIA: Washington, April 11. Sec., Dr. George C. Ober, 125 B St., S.-E.

GEORGIA ECLECTIC: State Capitol, Atlanta, about April 20. Sec., Dr. C. W. Miller, 192 W. North Ave.

IDAHO: Boise, April 4-5. Sec., Dr. O. J. Allen, Bellevue.

MINNESOTA: State University, Minneapolis, April 4. Sec., Dr. W. S. Fullerton, 215 American National Bank Bldg., St. Paul.

MONTANA: The Capitol, Helena, April 4. Sec., Dr. William C. Riddell.

NEW MEXICO: Santa Fe, April 9-10. Sec., Dr. J. A. Massie.

OKLAHOMA: Oklahoma City, April 11. Sec., Dr. Frank P. Davis, Enid.

RHODE ISLAND: State House, Providence, April 6-7. Sec., Dr. Gardner T. Swarts, State House.

UTAH: Salt Lake City, April 4-5. Sec., Dr. G. F. Harding, 310 Templeton Bldg.

WEST VIRGINIA: Huntington, April 10-12. Sec., Dr. H. A. Barbee, Point Pleasant.

Higher Entrance Standards

An official announcement received from the School of Medicine of Georgetown University, Washington, D. C., states that after Jan. 1, 1912, in addition to a four-year high-school education, two years of collegiate work will be required for admission; this additional work to include courses in physics, chemistry, biology and a modern language, either French or German.

Besides the forty medical colleges which require one or more years of collegiate work, there are now six others, or a total of forty-six, which by 1912 will have advanced requirements. Not only are medical colleges taking this action, but also the licensing boards in eight states have adopted a like standard as their minimum of preliminary education, and several other states are now endeavoring to secure legislation which will enable them to do likewise. It is safe to say that within the next few years all the better medical colleges, as well as the states which have secured a better control of medical licensure, will have adopted these higher requirements.

This advance will not only bring some relief to the overcrowded medical curriculum, but it will also secure for the medical schools more intelligent students who will be more able to comprehend and to make use of the intricate facts which make up the modern medical course. Certainly no measure in the effort to improve the quality of physicians is of greater importance than this decided advance in the entrance standards to medical schools.

Presented Forged Credentials

A medical student by the name of Lutf Joseph Rashid was recently dismissed from St. Louis University School of Medicine on account of his having presented forged credentials. These credentials consisted of a printed document which made it appear that he had passed successfully in all the subjects of the freshman year at the Northwestern University Medical School, where he attended in 1909-'10. Correspondence between the deans of the two colleges revealed the fact that instead of passing in all subjects at Northwestern, he had failed in three out of four branches at the end of the first semester, in six out of seven branches at the end of the year, and that he had been dismissed by the last-named school on account of poor scholarship. This incident shows that no medical school should accept credentials at their face value without obtaining corroboratory evidence from the college or colleges which the student claims to have attended. Numerous forgeries have been discovered by this method, adopted as a routine by some colleges, which otherwise might not have been detected.

Minnesota January Report

Dr. W. S. Fullerton, secretary of the Minnesota State Board of Medical Examiners, reports the written and practical examination held at St. Paul, January 3-6, 1911. The number of subjects examined in was 11; total number of questions asked, 110; percentage required to pass, 75. The total number of candidates examined was 9, of whom 6 passed and 3 failed. Thirteen reciprocal licenses were granted. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Northwestern University Medical School	(1910)	79.5, 88.5
Boston University	(1908)	80.8
University of Michigan, Dept. of Med. and Surg.	(1895)	78.7
Jefferson Medical College	(1909)	76.6
Marquette University, Milwaukee	(1910)	80

FAILED

Hamline University	(1908)	66.9, 73.9
Marquette University, Milwaukee	(1910)	68.1

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
Rush Medical College	(1909)	Illinois
Chicago College of Medicine and Surgery	(1908)	Illinois
Keokuk Medical College, Coll. of Phys. and Surg.	(1906)	Iowa
State University of Iowa, College of Medicine	(1906)	Iowa
University of Maryland	(1878)	Maryland
Creighton Medical College	(1910)	Nebraska
University and Bellevue Hosp. Medical College	(1899)	Colorado
Columbus Medical College	(1887)	Ohio
University of Pennsylvania	(1910)	Maryland
Medical College of Virginia, Richmond	(1907)	Virginia
Marquette University, Milwaukee	(1910)	Wisconsin
Queen's University, Kingston, Ontario	(1906)	Iowa
University of Turin, Italy	(1895)	Michigan

Rhode Island January Report

Dr. Gardner T. Swarts, secretary of the Rhode Island State Board of Health, reports the written examination held at Providence, Jan. 5-6, 1911. The number of subjects examined in was 11; total number of questions asked, 70; percentage required to pass, 80. The total number of candidates examined was 11, of whom 9 passed and 2 failed. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Yale Medical School	(1910)	91.5
Baltimore Medical College	(1910)	86.9
Johns Hopkins University	(1908)	90.1
University of Maryland	(1910)	80
Harvard University Medical School	(1909)	87.9
Tufts College Medical School	(1909)	81.8, (1910) 89.4
Starling-Ohio Medical College	(1909)	80
McGill University, Montreal, Quebec	(1908)	89.3

FAILED

Baltimore Medical College	(1909)	77.2
University of Vermont	(1910)	74.7

XUM

Book Notices

A HANDBOOK OF PRACTICAL TREATMENT. By Many Writers. Edited by John H. Musser, M.D., LL.D., Professor of Clinical Medicine in the University of Pennsylvania, Philadelphia, and A. O. J. Kelly, A.M., M.D., Assistant Professor of Medicine in the University of Pennsylvania, Philadelphia. Volume 1. Cloth. Price, $6 net. Pp. 909, with 233 illustrations. Philadelphia: W. B. Saunders Co.,1911.

Renewed interest in therapeutics is indicated by the publication of several recent works dealing with diseases specially from the standpoint of treatment. This interest accounts for the present work, which is to consist of three volumes and to comprise both a discussion of general principles and a detailed application of methods to individual diseases. The first volume, a book of 909 pages, is before us. It presents the views of a large number of writers and exhibits the faults as well as the virtues of the composite book. Most of the articles, however, are excellent, as might be expected from the names of the authors.

The introductory article by Musser gives a brief but excellent discussion of the relation of therapeutics to biologic processes and the defensive actions of the organisms.

The article on serotherapy, by Hektoen, is an excellent one, and presents this important subject in a scientific manner, and at the same time in language easily understood by all. The chapter on "Drug Poisonings and Drug Habits," by Horatio C. Wood, Jr., is comprehensive and practical. "Exercise, Massage and Mechanotherapy," by F. Tait McKenzie, thoroughly covers the field. Special attention is given to apparatus, this part of the article being well illustrated. The method of reeducating the muscles in locomotor ataxia is extensively described. Among "Miscellaneous Therapeutic Measures," by George P. Müller, a description of the hyperemic method of Bier is given, and other technical methods are described.

In an otherwise excellent article on "The General Care and Management of the Sick," by M. Howard Fussell, we read: "Headache, especially of nervous character, may be relieved by acetanilid, administered in 5-grain doses repeated half-hourly for four doses." These doses are large; it would be dangerous to give 20 grains of this drug within two hours to a nervous patient. At least a word of warning should have been incorporated. Some other method of quieting nervous headaches might also have been mentioned. The author gives sage advice, however, in the same section as to the inadvisability of prescribing for cough without careful diagnosis, especially emphasizing the danger of overlooking tuberculosis; and at the same time he warns against hasty diagnosis of this disease on insufficient signs.

The article by Edsall on "The General Principles of Dietetics" is one of the most useful chapters in the book. The subject is thoroughly and scientifically discussed, and yet in such a practical way that its importance and value will be readily appreciated even by the medical student. It is a pity that such reliable and practicable information on this important subject is not more frequently found in text-books. Only praise can be given to the article by Maynard Ladd on "The Dietetics of Infancy."

The article on "Drug Therapy," by Sir Lauder Brunton, is disappointing. While it is an exhaustive discussion of the whole subject of drug therapy, one would imagine, on reading part of it, that one was reading a chapter from a text-book of a quarter of a century ago. The use of "hydrocarbons" as a term for fats, while intelligible to those familiar with the older literature, can only confuse and mislead readers accustomed to present-day chemical nomenclature. Again, the fascinating theory in vogue thirty years ago that acids inhibit acid secretions and vice versa, and that alkalies stimulate the secretions of acids, is reproduced and applied especially to the secretion of the gastric juice, in spite of the fact, long since proved by experiment, that alkalies exert no such influence on the secretory activity of the stomach.

The chapter is also sadly marred by a tendency to the indiscriminate admission of proprietaries. It is rather strange that the editors would allow such nostrums as "Phenalgin" and "Cactina" to be recommended in the book. While a discriminating discussion of the value of proprietaries that are really deserving of recognition should be welcome in a work like this, we can but regret the presentation, in so excellent a book, of such an indiscriminate list as is brought into this chapter by Sir Lauder Brunton. We feel that so far as this part is concerned, it represents English rather than American views at the present time.

"Organotherapy," by Warren Coleman, presents a comprehensive but conservative view of the present state of knowledge regarding these methods. The rest cure, the work cure and psychotherapy are discussed by Charles W. Burr. Psychotherapy is very briefly considered in view of the extensive notice that it has recently received. Hypnotism is rather discouraged as the author has seen distinct injury from its improper use. An interesting chapter is that on artificial aerotherapy by Henry Sewall. "Electrotherapy," by J. M. Mosher, gives an excellent account of methods and indications. An admirable feature of this chapter is the summing up of the present status of electricity in general medical practice in three short paragraphs. Radiotherapy is treated by H. K. Pancoast. The author includes a consideration of radium, which, however, he thinks is not likely ever to equal the *x*-ray in general efficiency. Space does not permit a review of the articles on sunstroke by Tyson, diseases of the blood by Cabot and diseases of the lymphatic system and ductless glands by Dock. The excellency of these articles may be assumed from the names of their authors. The other articles dealing with minor subjects which space does not permit us to consider in detail are also excellent.

The first volume indicates that in spite of minor defects the complete work will be one of real value and if the standard set by the majority of the writers who have contributed to this is maintained in the succeeding volumes, the work will take high rank; it certainly will meet the needs of all classes of physicians.

URINARY SURGERY. A Review. By Frank Kidd, F.R.C.S., Assistant Surgeon to the London Hospital. Cloth. Price, $2.60. Pp. 429, with illustrations. New York: Longmans, Green & Co., 1910.

The opening statement of this book describes it as "an attempt to review for the use of the practitioner the progress of urinary surgery during the last decade." The attempt has achieved notable success; the text is admirable in conception and execution—a terse, clear, complete presentation of etiology, diagnosis and the principles of treatment.

Among the few errors of sufficient moment for correction are the following: the usual recommendation of suprapubic aspiration instead of a single puncture for the insertion of a catheter, as the means for the relief of urinary retention; the advice to use cocain for anesthesia of urethra and bladder—a drug usually abandoned as dangerous in the urinary channel; and the usual failure to teach that tuberculosis of the urinary and genital tract results from a vice of nutrition which must be corrected by constitutional treatment (especially hygiene and tuberculin), to which treatment the knife is always subsidiary. In this book the local tuberculous focus and its removal by the knife obscures the major object of treatment—the correction of the constitutional defect.

The book is worthy of recommendation to both the general and the special practitioner.

THE PREVENTION OF SEXUAL DISEASES. By Victor G. Veckl, M.D., ex-President San Francisco German Medical Society. With Introduction by William J. Robinson, M.D. Cloth. Price, $1.50. Pp. 132. New York: The Critic and Guide Co., 1910.

This little book contains a frank exposition of the author's ideas of this complex and important subject. As causes of the prevalence of venereal diseases, he gives ignorance, prostitution and alcohol. To overcome ignorance, the author advises education all along the line. The question of alcohol, he does not attempt to solve. The question of prostitution, he discusses in a sane and logical manner. He is a firm believer in segregation, as in this way only, he thinks, is it possible to accomplish a humane supervision of the prostitute. He condemns the reporting of cases of venereal disease and endorses the Detroit plan. What the book lacks in literary style, it makes up in sincerity and enthusiasm

Medicolegal

Information Obtained by Physician Appointed to Make Examination Not Privileged

The Court of Appeals of New York holds in the homicide case of People vs. Austin (93 N. E. R. 57), that information acquired by a physician through examination without intention or expectation of treatment is not privileged. In this case counsel for the defendant applied to the court, just before the trial, on an affidavit setting forth that the defendant was without means with which to procure the services of a physician to examine the defendant as to his sanity, so that his testimony might be used at the trial of the action, and asked that a physician be appointed to examine into the condition of the defendant and attend on the trial and testify, if the defendant so elected, and that the charge for such services of the physician be made against the county. The order was made, and the physician so appointed examined the defendant, but he was not called on behalf of the defendant as a witness at the trial. He was, however, called by the district attorney, after testimony as to the defendant's sanity had been offered, though three or four preliminary questions only were allowed to be answered, anything further being deemed privileged. That the witness should give any testimony was claimed to be error, but the court does not think that the defendant was prejudiced.

The testimony of a physician, the court says, was not excluded at common law. It is not privileged by the present New York statute (section 834 of Code of Civil Procedure), except when his information is "acquired in attending a patient, in a professional capacity," and where such information "was necessary to enable to act in that capacity." This court has frequently held that the burden is on the party seeking to exclude the testimony of a physician under said Section 834 to bring the case within its provisions.

It is clear from the statute itself and from the authorities that if the physician never attended the defendant in a professional capacity and never obtained information from him to enable him to prescribe in such professional capacity, he can testify the same as any other person. In such a case the seal of confidence existing by virtue of the statute between physician and patient and made necessary to obtain the fullest information in no way applies. It did not appear in this case from anything before the court that the physician, by what he said to the defendant, led him to believe that he was there to prescribe for him, or that the defendant by what was said by the physician was led to accept him as a physician and consequently to disclose to him information that perhaps would not otherwise have been given. Where a physician is sent to a jail by the district attorney to make an examination of the prisoner's mental and physical condition, the relation of patient and physician as contemplated by Section 834 does not exist, and the prisoner is not thereby compelled to furnish evidence against himself. There was nothing disclosed in the record in this case to show that the examination which the physician made of the defendant in the presence of his counsel was not competent, or that it was privileged by reason of Section 834.

Counterclaim Wrongly Allowed in Action for Services—No Implied Contract to Cure

The St. Louis Court of Appeals holds a new trial to be necessary in the case of Ruth vs. McPherson (131 S. W. R. 474), where the jury returned a verdict for the plaintiff for $225 for professional services, and for the defendant in the sum of $725 on a counterclaim for damages for malpractice, based on an alleged contract to heal and cure, or a net sum of $500. The court says that the jury by their verdict in favor of the plaintiff on his account must have found that the facts set out by the plaintiff in that account as to the rendition of the services and their value, and that they had been rendered at the instance of the defendant, were correct. To so find the jury must have concluded that the defense which the defendant interposed to that account, namely, unskilfulness in rendering them, was not sustained; that is, the jury by their verdict of $225 on the account in favor of the plaintiff necessarily found against the defendant on all of his averments as against that account. Having so found, then to turn round and find a verdict in favor of the defendant on his counterclaim, which counterclaim, to all intents and purposes, was founded on the identical defenses set up to the account, was utterly irreconcilable with the verdict in favor of the plaintiff on that account. Hence, as being inconsistent with itself on the issues, the verdict, as a whole, could not stand. Moreover, the counterclaim was specifically based on an alleged special contract whereby the plaintiff undertook as a physician and surgeon to attend and to cure and heal the defendant, but there was not an iota of testimony to prove any special contract. It is not within the implied contract of a surgeon employed to operate, or of a physician to attend on a patient, that he will heal and effect a cure. Any such contract must be an express one; it is not implied by the mere employment. To use skill, etc., is all that is implied in the mere employment of a physician or surgeon. Considering the averments of the counterclaim in this case, on which the defendant recovered damages, and in which counterclaim the averment of the contract to heal and cure was distinctly contained, the court holds it to be an averment which could be sustained only by proof of an express contract, a contract outside of the implied contract under which a surgeon is employed.

Latitude Allowed in Hypothetical Questions

The Supreme Court of Indiana says, in Taylor vs. Taylor (93 N. E. R. 9), that a party may put his hypothetical case as he claims it to be proven, or within reasonable inferences from the evidence, and the jury determines whether it is so supported by the evidence as to be of any value, or as to the weight and value they will give it. The opinion may be tested by cross-examination, by omissions and additions to the original question, or by an entirely new state of facts. If facts are assumed in a hypothetical question which are clearly so exaggerated as to impair the opinion, or are such manifest assumptions as to be misleading, confusing, and aside from evidence or fair inferences from the evidence, it should be excluded, and its admission might be prejudicial error in a given or specific case. But the weight and value of the opinion is a question for the jury, and depends for its value on there being evidence, admissions, or facts proved, on which it is based. And even if the question is faulty by the insertion of some facts not supported by the evidence, so that, uncorrected, an error might occur, it is corrected by an instruction to the jury that, if any of the material facts contained in the question are not shown by the evidence to be true, they are not to be taken as true, because embraced in the question, and, if of such character as to destroy the reliability of the opinion based on the hypothesis stated, the jury should attach no weight whatever to the opinion.

Medical Practice Act Not Invalidated by Provision as to Prayer

The Court of Appeal, First District, California, holds, in Ex parte Bohannon (111 Pac. R. 1039), that the medical practice act of that state of 1907 is not rendered unconstitutional by the proviso that nothing therein shall be held to apply or to regulate any kind of treatment by prayer. It was contended that this exemption made the whole act unconstitutional and void, and that it gives to a certain class of persons, to wit, those who treat physical ills by prayer, privileges and immunities, which "under like conditions are not granted to all citizens." But the court does not so construe the section. If prayer can be regarded as practicing medicine and as an immunity, the act, the court says, allows every person, man, woman or child, such immunity and the right to pray for the sick and afflicted, and that is the only way that disease can be treated by prayer. Whether such treatment avails anything or not is not for the court to say; but the privilege of practicing such treatment or such supplication is granted and allowed to all. The proviso or exception was evidently put into the act to prevent any interference with the right of any one to pray for the sick and afflicted.

XUM

Society Proceedings

COMING MEETINGS

AMERICAN MEDICAL ASSOCIATION, Los Angeles, June 27-30.

Alabama, Medical Society of the State of, Montgomery, April 18.
Am. Assn. of Pathologists and Bacteriologists, Chicago, April 14-15.
American Gastro-Enterological Assn., Philadelphia, April 19-20.
Am. Assn. Genito-Urinary Surgeons, New York, May 1-3.
American Dermatological Association, Boston, May 25-27.
American Gynecological Society, Atlantic City, May 23-25.
American Laryngological Association, Philadelphia, May 29-31.
American Neurological Association, Baltimore, May 11-13.
American Orthopedic Association, Cincinnati, May 15-17.
American Pediatric Society, Lake Mohonk, May 31-June 2.
American Society of Tropical Medicine, New Orleans, May 18-19.
American Therapeutic Society, Boston, May 11-13.
Arizona Medical Association, Bisbee, May 2-5.
Association of American Physicians, Atlantic City, May 9-10.
California, Medical Society of State of, Santa Barbara, April 18.
Connecticut State Medical Society, Hartford, May 24-25.
District of Columbia, Medical Association of, Washington, April 25.
Florida Medical Association, Tallahassee, May 10.
Georgia, Medical Association of, Rome, April 19-21.
Illinois State Medical Society, Aurora, May 16-18.
Iowa State Medical Society, Des Moines, May 17-19.
Iowa State Medical Society, Des Moines, May 17-19.
Kansas Medical Society, Kansas City, May 3-5.
Louisiana State Medical Society, Shreveport, May 30-June 1.
Maryland, Med. and Chirurgical Faculty of, Baltimore, April 25-27.
Mississippi State Medical Association, Jackson, April 11.
Missouri State Medical Association, Jefferson City, May 16-18.
Montana State Medical Association, Butte, May 10-11.
Nebraska State Medical Association, Omaha, May 2.
New Hampshire Medical Society, Concord, May 11-12.
New York, Medical Society of the State of, Albany, April 18.
North Dakota State Medical Association, Fargo, May 9-10.
Ohio State Medical Association, Cleveland, May 9-11.
Oklahoma State Medical Association, Muskogee, May 9-11.
South Carolina Medical Association, Charleston, April 19-21.
Tennessee State Medical Association, Nashville, April 11-13.
Texas, State Medical Association of, Amarillo, May 9-11.
Washington State Medical Association, Spokane, May 9-11.

NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING AND LICENSING BOARDS

Twenty-First Annual Meeting, held in Chicago, Feb. 28, 1911

The President, DR. JOSEPH C. GUERNSEY, Philadelphia, in the Chair

An address of welcome was delivered by Dr. George W. Webster, Chicago, which was responded to by Dr. Lee H. Smith, Buffalo.

Dr. Guernsey delivered an address on medical licensure.

Officers Elected

The following officers were elected: president, Dr. Charles A. Tuttle, New Haven, Conn.; vice-presidents, Drs. James A. Egan, Springfield, Ill., and A. B. Brown, New Orleans; secretary-treasurer, Dr. George H. Matson, Columbus, Ohio; executive council, Dr. N. R. Coleman, Columbus, Ohio, chairman; Dr. Charles H. Cook, Natick, Mass.; Dr. Joseph C. Guernsey, Philadelphia; Dr. W. Scott Nay, Underhill, Vt.; Dr. James A. Duncan, Toledo, Ohio.

Chicago was selected as the place for holding the next annual meeting.

Flexner Report

MR. ABRAHAM FLEXNER, New York City: In my report to the confederation last year I pointed out: (1) The education prerequisites should be defined, and the board authorized to insist on it as an educational preliminary. (2) The enforcement of even the four-year high school standard will so far clean up the medical field that the state boards will at once be relieved of the duty of dealing with actually disreputable schools. (3) The examination for licensure is the lever with which the entire field may be lifted; for the power to examine is the power to destroy. A model state board law must guard the following points: the membership of the board must be drawn from the best elements of the profession, including those engaged in teaching; the board must be armed with the authority and machinery to institute practical examinations, to refuse recognition to unfit schools, and to insist on such preliminary educational standards as the state's own educational system warrants; finally it must be provided, either by appropriation or by greatly increased fees, with funds adequate to perform efficiently the functions for which it was created.

REPORT OF REFERENCE COMMITTEE

The committee to whom was referred the Flexner report, composed of Drs. W. J. Means, N. P. Colwell and Henry Beates, made the following report, which was adopted:

The recommendations made in Mr. Flexner's paper concern subjects which have been frequently presented and discussed at meetings of this confederation, as well as of the Association of American Medical Colleges and of the Council on Medical Education. We recommend, therefore, that most careful consideration be given to all the suggestions made, and that the three special recommendations, regarding preliminary education, the refusal to recognize poorly equipped schools and practical examinations, be adopted.

SYMPOSIUM ON STATE CONTROL OF MEDICAL COLLEGES

Could the State Control and Conduct Medical Colleges More Efficiently than Corporations and Private Individuals?

DR. C. W. DABNEY, President of the University of Cincinnati: Let us state the proposition in the following terms: public control of medical colleges through state, municipal or other public corporations, including corporations which, though not state or municipal in name, still by reason of their breadth and importance, really represent the entire public, should be expected to conduct medical colleges more efficiently than private corporations or private individuals. We should plan for the best organization of the medical college as a part of our system of public education. The duty of the state is being better and better understood, with the result that in the last two years many of the state universities have established colleges of law, of medicine and of dentistry, as well as of engineering, colleges for teachers, etc. The chief argument for public-supported institutions in a democracy is the necessity of making them accessible to all classes of citizens on equal terms. To exclude the poor from the opportunities of the highest education, including professional education, or to educate them only at the bounty of the wealthy, is utterly repugnant to our democratic ideals. It is eminently desirable that the wealthy should give of their surplus to endow and support public institutions. The best location for a medical college is where it will enable it in the most efficient manner to perform three great duties to the public: (1) The education and training of properly qualified youths for the profession of medicine and the service of the people in families, dispensaries and hospitals; (2) the advancement of science through experiment and research; (3) the education of the people in health and principles of preventive medicine and sanitation.

The Duty of the State in the Control of Medical Colleges

MR. ABRAHAM FLEXNER, New York City: There should be state control of medical colleges. This control should be indirect in the sense, first, that the state shall determine the date of registration of each medical student by setting a standard of preliminary education and permitting the student to begin to count his time of medical study only after the state has declared his preliminary education completed; second, that the state shall require a minimal period of medical study in a properly equipped medical school; third, that the state shall register for practice only such individuals as give evidence of having obtained a certain minimal knowledge of medicine as determined by examination and practical tests, etc.

Discussion on State Control of Medical Colleges

HON. CHARLES ALLING, JR., Chicago: If the courts will sustain as a requirement for examination a diploma from an institution of the standards upheld by the Association of American Medical Colleges, they should for the same reason sustain a law providing that the degree of M.D. shall be given only by medical colleges in good standing with the State

Board of Medical Registration and Examination, an official body created by and acting for the state to secure good medical service for all the people.

DR. VICTOR C. VAUGHAN, Ann Arbor, Mich.: The practice of medicine is under any and every condition a public service. No man can practice medicine without rendering a public service. Every physician present who attends a case of scarlet fever, diphtheria, or anything of that kind, may do the best he possibly can for his individual patient, yet he is rendering a hundredfold greater service to the state. He is preventing the spread of that disease. The practice of medicine is necessarily a public service, and it has been decided by the Supreme Court of the United States that the regulation of it lies within the hands of the state. The state has a perfect right to put any regulations that it pleases on the practice of medicine. We should impress on the people, and especially on those connected with state universities that are teaching medicine, that the most important function we have to perform is the enlargement of medical knowledge.

DR. GEORGE H. HOXIE, Kansas City, Mo.: The majority of the people do not accept the fundamental principle that they have a right to restrict the practice of medicine, because the higher we get our standards, the more likely are they to permit the followers of the isms and pathies to practice medicine under one guise or another; thus showing conclusively, in my opinion, that they have not accepted that fundamental principle, but have simply been yielding to the pressure brought to bear by physicians. It is only when the people of the state become convinced of these fundamental principles that there is any hope of controlling medical colleges from without or of adequately supporting them.

DR. JAMES R. GUTHRIE, Dubuque, Iowa: If it be true that the future of medical education is largely in the line of preventive medicine, public hygiene and sanitation, is it not the highest duty and prerogative of the state to accept that situation and make it obligatory and place the power of the state behind this, the leading and controlling idea in modern scientific education?

DR. GEORGE BLUMER, New Haven, Conn.: I think it may be said that even when the appointment of state medical examiners is in the hands of bodies like state medical societies, we cannot entirely rule out the possibilities of political appointment, since politics enters into state medical societies as well as into the executive positions of the state. Another point of interest is the matter of representation of teachers on the state board of medical examiners. I think every teacher of experience has felt very critical at times toward the kind of questions that are put to students by a great many state boards of examiners. Members of the state board of examiners are not always selected with the idea in mind that they are to examine students trained in modern medical schools. For instance, there should be a man on the board of examiners who has been trained by the modern methods in such subjects as pathology and bacteriology, and it seems ridiculous to expect a man who has not received that kind of training to ask intelligent questions on those subjects.

The Advantages to Medical Colleges of State Control

DR. ARTHUR DEAN BEVAN, Chicago: Proper state control would mean a great deal and be of great advantage to the medical colleges which are doing good work and developing along scientific lines. I believe that if every state board represented in the confederation will attempt to get the profession of its own state back of it and make proper state control effective, within five years American medicine could be placed in a position, with the exception of a very few states, where we could say that the American medical student is obtaining the proper medical education; that he has had a proper preliminary and medical education, and some practical hospital experience before he is allowed to practice medicine.

Some Evils in the Present System of Medical Education

DR. F. C. WAITE, Cleveland, Ohio: The evils of overproduction of medical graduates are self-evident. First, the field is overstocked, consequently the average income and adequate living are reduced. Second, from this the result must be that the more able members of following generations will shun the profession and its recruits must come from the mediocre. The general tone of the profession will thereby diminish. Third, the average lack of income from reputable and ethical practice of the profession will lead many into quackery and charlatanry, and thereby yet further reduce the dignity and respectability of the profession, which again will divert the tendencies of able young men from the profession. Medical teaching, even if privately supported, so closely affects the public that it must be considered a public utility, and therefore subject to the control of the commonwealth. The number of schools in a given state can be limited, either arbitrarily or by forcing public opinion to a level where the cost of maintenance of a school will exceed the private advantages accruing. This may be done by a close supervision of entrance requirements, by insistence on adequate laboratory equipment and clinical opportunities; by limiting the student body to the more capable. By examinations the average capability of the students can certainly be controlled. It is very important that practical means be found to eliminate men who do not measure up to the promises indicated by their preliminary training. The lack of this needed elimination of the unfit is one of the weakest points of our present system. The last two years, during which discussion has been free and meetings of representatives of various schools frequent, have shown a tremendous growth of interest on the part of each man and each school in the common cause. The further equalization of interests that would come from more centralized control would yield a further community of interests among the schools. A standardization of equipment and facilities, and the establishment of a minimum of opportunity for each student would secure a product in the graduate that would gain the confidence of both laity and profession. A control of the student's training at the time of admission, rather than an examination of his shortcomings after the evil is done, would be far more just to the student, who is too often innocently a victim of a system which seems to employ every means to mislead him and none to protect him. State control of medical education, like municipal ownership, has the potentiality of great blessings, if properly managed; but too often it is capable of many pitfalls if unwisely construed. To work out and put into operation all the details of such a plan is no light task. To gain the balance between ideals and expediency between the desirable and the possible requires rare judgment and altruistic devotion.

State Aid in Securing More Full-Time Salaried Teachers

DR. FRANK WINDERS, Columbus, Ohio: That full-time salaried men are indispensable to the proper teaching of the first and second years of the medical curriculum is no longer questioned. This plan is now in practice in every first-class medical school. The true purpose of a medical college is to be found only in teaching the science and art of medicine to the end that its students and graduates may be best equipped to prevent and relieve the ills and accidents of mankind. When other aims and purposes creep into the scheme of medical teaching, such as the personal interests of the teacher, the standard is lowered, the quality of instruction suffers, and the unfortunate student, not the teacher, pays the penalty. The teacher whose chief purpose consists in increasing his clientele by his teaching can certainly not develop the best that is in the student. Adequate compensation in proportion to the time required and to the excellence of the service rendered would do much to correct the evils resulting from the present practice. No modern medical college can be successful in its truest sense, unless it has at its disposal the wards of one or more large hospitals, and an adequate dispensary service. It is in such institutions that the material for successful clinical teaching must be obtained, and at least a part of the teaching staff in general medicine and surgery should be free to devote their entire time to such clinical work and to their duties as teachers. A college which does not have in its hospitals and dispensaries sufficient clinical material, properly utilized, to keep one or more teachers of general medicine and surgery

busily occupied for their entire time, should not be permitted to remain in existence. One clinical case properly and exhaustively analyzed and demonstrated will have more real value than many which are presented in an incomplete and hurried manner. If medical schools were aided and controlled by the state, the same excellent conditions would obtain in all schools as are found in our state universities.

State Control of Medical Education and Enforcement of the Medical Practice Act

DR. EDWARD CRANCH, Erie, Pa.: The function of medical examining and licensing boards is judicial: deciding between the claims of the candidate backed by his college on the one hand, and the rights of the people, who need protection from the ignorant and unqualified practitioner, on the other. Licensing boards should also have the power of revoking licenses for cause shown. In the exercise of their function, in Pennsylvania, the examining boards were at first greeted with a defiant attitude by certain colleges whose faculties assured their students that it was of little or no consequence whether they passed the boards or not, the colleges would see that they had the right to practice anyhow—whatever the boards might say or do. This attitude was signally crushed by the results of one year's examinations, in which over 30 per cent. of candidates were rejected. If now, as under state control would be the case, examiners and teachers knew better what was coming, the work of both would be easier, but at the same time, if written examinations alone were to be relied on, chances for cheating would increase in equal measure. When the student knows that his record of study and standing in class will count for or against him, and when he knows that he is to be orally and practically examined, if only in some few departments, such as anatomy, materia medica and diagnosis, it will improve his whole method of study and render it more practical. The method of full control would be suitable for one or two colleges in each state, and then if others wish to organize, as now, they can, under a modified control, be rendered equally efficient, and yet preserve that initiative which will develop new and better methods for the future. In this way examining and licensing boards will find their work supported by the colleges, instead of being antagonized and criticized, as at present. This alone furnishes a good argument for at least a modified state control.

Result of State Control of Medical Colleges on Professional Efficiency

DR. ROYAL S. COPELAND, New York City: When one considers the really ideal condition as regards medical college supervision, naturally he thinks of the superior advantages of federal control, with uniform standards of admission, graduation and licensure. This, however, is impossible at present, and perhaps would be unwise. Of necessity, low standards will prevail in pioneer and undesirable sections of the country, and a federal law, in striking an average for the country at large, would raise a much higher standard than could obtain in many of the individual states. State control, therefore, is the present logical solution of the problem. In the matter of medical colleges, private control undoubtely results in abuses and a lower standard than should be tolerated at the present time. Certainly private control must mean lack of uniformity. In a given state, for instance, with private control, there will be of necessity as many standards of admission and graduation as there are colleges. With state control, while the standards may be no higher than the average of the private institutions in another state, at least there is uniformity in the administration of the colleges. There is uniformity as to the minimum requirements, with perfect liberty of diverse views as to the maximum. State control has all the benefits of federal control, if there are reciprocal relations between the states. This reciprocal relationship, so desirable to our profession, would be much easier to realize were there uniformity in the college curricula, as regards the essentials of medical education. The great argument for state supervision is the protection of the people against charlatans, quacks and poorly educated practitioners. Legislation providing for state supervision should include the conditions under which medical college charters may be issued, and the minimum requirements of preliminary and professional education. State supervision should include the right to revoke, for due cause, the license to practice medicine. The natural corollary of state supervision is reciprocity between the states. To this end there should be uniform laws and requirements. State supervision makes for more uniform and thorough education.

Report of Committee on Materia Medica

DR. MURRAY GALT MOTTER, Washington, D. C., presented the list of medicaments reported last year in alphabetic order. Personally, he sees no advantage from the standpoint of the confederation in a list classified under any system whatsoever. The important thing to know is to what medicaments with their preparations it is desirous that chief attention shall be given, and he suggested that it would be both interesting and profitable to have a complete alphabetic list, including the list submitted by the joint committee last year, the list submitted by the Chicago Medical Society and adopted, and a list from the English examiners recently received by him from Dr. Cushny. A printed (complete) list is needed showing the drugs which are named in all three lists, and then the profession will have a competent list of drugs having wide use both in this country and in Great Britain. The future work of the committee on materia medica should be directed along the lines of securing endorsements of this general proposition. The list itself is not of such vital importance as the general proposition to adopt a restricted list. Then, if the teachers will devote their time and attention to this list, and if every medical examining board should say we will grant say 75 or perhaps 80 per cent. in the subject of materia medica pharmacology for examinations on this restricted list, it would leave the field open. It would not oblige any board to restrict itself absolutely to the list or prevent any teacher from teaching anything he might wish to teach. So it would leave the field open and mark a decided step in the progress for a more sane therapy.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Annual Meeting, held Feb. 27-28, 1911

(Continued from page 843)

The Medical College Library

DR. C. M. JACKSON, University of Missouri: The medical college library is an important but neglected factor in medical education. It supplements the laboratory and clinic by making available the accumulated knowledge and wisdom of the whole world, both past and present. The library should be carefully selected, quality being more important than quantity. Of the various forms of medical literature, the standard periodicals are by far the most important. Students should be instructed in the use of medical literature. A good library is indispensable in encouraging that research spirit which should be the ideal in medical education. Through his experience in daily practice the practitioner learns something, but through the medical literature he learns to interpret this experience and to profit by the experience of others.

The medical college library should include 4,000 or 5,000 well-selected volumes; especially it should include subscriptions to at least 100 of the leading medical periodicals. It is doubtful whether there are now more than twenty medical schools in the United States which meet this demand. More could easily do so, and doubtless will when the value of the college library in medical education is better understood. Periodicals are far more important than text-books, which are at best only compilations made from periodicals. Good periodicals contain original observations. There should be periodicals more or less general in scope and those devoted to the individual laboratory and clinical subjects. Some of the principal French and German journals should be included, as the better class of medical schools now require a reading knowl-

edge of these languages. Under periodicals should also be included the transactions of the more important medical societies and hospital reports, which contain much of permanent value. Next to periodicals in importance come the various guides to medical literature—the Index-Catalogue of the Surgeon General's Library, the *Index Medicus*, German *Jahresberichte*, and others might be mentioned. Next in importance stand the dictionaries, encyclopedias, systems of medicine and surgery, handbooks and monographs, and, last of all, the text-books.

A trained librarian should be in charge. A faculty library committee should select the books and periodicals to be placed in the library. The funds necessary should be provided for in the annual budget. To maintain a good working library will require an annual appropriation of at least $1,000. Some good can be done with less. The students can be called on for assistance, likewise the faculty, and some donations from outside sources can be secured. The library should be accessible, catalogued and kept in order. Originality and independence of thought should be encouraged by frequent references to various sources in the best medical literature. It is important to make students familiar with the best sources of medical literature, how to find and use them. Instruction on these points should be given in the first year of the course by the librarian or some one competent to do so.

Every student before graduation should be required to write an original thesis on some subject of his choice, which, of course, will include a review of the literature. It would stimulate teachers and students to better efforts along this line. Only two schools, Yale and Bowdoin, now have such a requirement.

The following resolution was introduced by the Committee on Pedagogics and was adopted:

Resolutions

Resolved, That the association request each school to ascertain and file in the dean's office the estimate of each instructor as to the time required, both in the class-room and at home, in each course offered in the catalogue.

Resolved, That the judicial council be instructed to report at the annual meeting in 1912 as to the proper standard to be established for medical colleges in various sections of the country, and that the judicial council be instructed to confer with the Council on Medical Education of the American Medical Association and with the Carnegie Foundation for the Advancement of Teaching in the hope that these three bodies may agree on a minimum standard that may be applied practically at the present time.

Resolved, That the judicial council be requested to report at the same time as to the best methods of carrying out the inspection of colleges in membership in the association as provided for in the by-laws, sections 6 and 7, and of schools applying for membership in the association. (These two resolutions were introduced by the Committee on Medical Education and adopted.)

Report of Committee on Equipment

The committee pointed out the great need for securing proper clinical facilities, and urged the colleges to formulate plans tending toward the acquisition of a teaching hospital, a hospital in which all the material is available for teaching purposes. The committee urged that this be made an equipment requirement, as much so as microscopes and other apparatus used for teaching.

Report of Committee on Pedagogics

The committee offered suggestions on four topics:

1. The Unit of Credit:—Students should be given time for independent analytical thought. The average student cannot work profitably, either in class or by himself, more than twelve hours a day for five days in the week, or for ten hours a day for six days in the week. Sixty hours a week should be the optimum number of hours under average conditions. This for thirty-two weeks of actual teaching means 1,920 hours, or for thirty-six weeks, 2,160 hours. The committee recommended the recognition of a ratio of two hours of preparation or reading to each hour of recitation or lecture, and one hour of preparation or reading for each two hours of laboratory or clinic teaching—a three-hour unit. Catalogues should state how these hours are subdivided in each course.

2. Discussion of Pedagogic Principles:—The committee suggested that the regular faculty meetings be given over to the discussion of these principles, best under the guidance of some professional teacher brought in for the occasion. The oftener such meetings are held, the better.

3. Syllabus:—A syllabus of the courses of study in the curriculum is a necessity because of the increasing specialization and subdivision. It will avoid misunderstanding and amendment.

4. Training of Teachers:—Can clinical teachers be efficient without private practice? The committee made no recommendations or suggestions, but presented the opinions of three men. One, a clinician with only hospital training, did not believe that any particular form of training could be mapped out as a prerequisite for clinical teaching. To be successful he must have the *Geist* and be trained thoroughly. The best man is he who devotes his time to work in the fundamental branches, to clinical work in the hospital and a moderate amount of consultation practice. Private practice is time-consuming, leaving little time for development. There should be two classes of clinical teachers: those who devote a large part of their time to medical school work and those who devote a small part. The second, a man who has enjoyed private practice, said that it is impossible that a man should carry on a medical practice and at the same time conduct a medical department in a hospital and teach students. A moderate amount of time may profitably be spent in consultation work. The third, also a man who has had private practice, regards some training in private practice as being as essential as a training in chemistry, bacteriology or pharmacology. But such training must be limited because otherwise other equally essential training will be neglected. He, too, favored some consultation practice because of its educational value and the necessary intercourse with practicing physicians which it furnishes.

(*To be continued*)

CLEVELAND ACADEMY OF MEDICINE

Meeting held Feb. 17, 1911

DR. W. B. LAFFLER in the Chair

Some Common Fractures and Results of Treatment

DR. FREDERICK J. COTTON, Boston: The Roentgen ray has wrought many changes in the point of view of treatment of fractures, and has enabled us to work with more precision. What we want is, first, the avoidance of obvious deformity, and second (much more important), the attainment of good functional usefulness. Most troublesome cases are the result of (1) not checking results by the Roentgen ray; (2) associated nerve lesions being overlooked at first, and when found, attributed by the sufferer to the treatment; (3) forgetting that functional usefulness is the main aim and caring only for position in all cases of Colles' fracture along with radial fracture there is a forward dislocation of the ulna, and in effect on functional result this is of more importance than radial fracture. After reduction splints should be applied: (1) to protect radial fragments from trauma or muscle contraction; (2) to hold the ulna back where it belongs (it can't be held too far back); (3) to be comfortable. Splints should not confine thumbs and fingers, and active motion should be started not later than the third day. The posterior splint should be removed in one week and all in from ten days to two weeks. In elbow fractures in adults, after reduction by traction and direct manipulation, the arm should be put in the position in which the fragments are most firmly held, and the best splint is the one which best accomplishes this. The Roentgen ray should be employed to see that reduction is good. Within a week, with fractures of one condyle, and within two weeks, with fractures of both condyles or in T fractures active motion is allowed once a day. The surgeon should hold the fragments firmly and support the forearm. In children, elbow fractures are usually more or less complicated epiphyseal separations. After the fracture is reduced what of treatment? (1) Passive massage and motion in children only stirs up joint reaction, pain and

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stiffness. (2) Active motion, without danger of slipping of fragments, is hard to control in children, and is not to be employed for four weeks. (3) Children with elbow lesions do not show any permanent stiffening (except from malposition of bones), so that we need not worry about reestablishing motion. (4) Separation of the external condyle shows many instances of non-union; separation of internal condyle always results in fibrous union.

Shoulder fractures are commonly of the anatomic or surgical neck. The former are usually impacted and occur generally in the aged. They had best be left alone and mobilized early. Fractures of the surgical neck occur generally in youths or strong adults and if there is great difficulty in reducing, I have no hesitancy in cutting down and levering fragments into place, when a stitch of chromic gut will hold them. Though this is a serious operation, I believe that separation of the humeral epiphysis or fracture of the surgical neck in vigorous persons will come to be recognized as a condition calling for early operation in a large percentage of cases. In leg fractures, the question that comes up is whether after reduction the position is not good enough to let go, not whether it is perfect, for perfect reduction is impossible. The general line of the shaft should be good, and a position must be avoided in which the outer side of the periosteum of one fragment is brought into contact with a similar surface of the other fragment as it presages non-union from poor formation of callus.

The commonest of all ankle fractures is a fracture of the fibula alone, and it may occur from inversion or eversion. The former is more common. A not uncommon fracture, which is not described in text-books, is a splitting off of a large portion of the back edge of the tibia in a fragment that carries the internal malleolus as well. The fibula is also broken. The foot, astragalus, tibial fragment and lower fragment of the fibula move backward together.

As to the disability of the ankle joint following fractures, we have three important factors, mostly independent of precise lesion: (1) distortion of joint surfaces, causing unnecessary joint friction and limitation of motion; (2) deviation of weight-bearing axis; (3) loss of function (due to long immobilization). In reducing such lesions we should aim to alleviate these faults as much as possible and use early, active motions, preventing stiffening.

DISCUSSION

DR. FRANK E. BUNTS: In the last five or six years our ideas of the treatment of fractures have materially changed—due to the use of the Roentgen ray. Does Dr. Cotton think that ischemic paralysis is due to tight splints or to faulty position of the splints, and how long does it take to produce it? I find that Mr. Lane, of London, thinks the periosteum of no value in the formation of callus. What does Dr. Cotton think of the use of Bier's passive hyperemia in delayed union in fractures? In the last few years fractures of the carpal bones have attracted the attention of many; especially since the Roentgen ray has shown many of the so-called sprains to be fractures. Does Dr. Cotton believe in operating and removing the fragments when they are especially difficult to reduce?

DR. J. F. HOBSON: I agree with Dr. Cotton that a Colles' fracture once reduced does not usually become displaced again. In a Pott's fracture we have always been taught that the three lines of fracture were (1) lower end of fibula; (2) internal malleolus, and (3) a small chip that was generally broken off the outer edge of the tibia. I see that Dr. Cotton did not mention the latter, and I would like to ask him about its relative frequency. In a fracture functional result is what is first desired, second, as near a return to the normal as is possible.

DR. G. W. CRILE: Surgery is once more beginning to turn from the abdomen to the bones and joints. The latter have been neglected and it is high time that the specialist and general practitioner make a careful study of the bones and joints.

DR. GEORGE B. FOLLANSBEE: I have found in all fracture cases that early movement of the joints is of great value and tends to prevent adhesions and stiffness. I would like to ask the speaker whether it is always possible to reduce a dislocated ulna in a Colles' fracture. At times I have great trouble in doing so and also in keeping it in place. Does it make much difference whether the styloid process is much separated in a Colles' fracture?

DR. W. O. OSBORNE: I have at present two old cases of Colles' fracture. In both there has been left a preternatural mobility of the ulna; the joint is also a little painful and a trifle weak. Is there any way to remedy this?

DR. F. J. COTTON: Ischemic paralysis is often difficult to separate from a nerve paralysis. I have seen very few cases of it. In one case in which there was a cord-like matting together of the muscles, I found it necessary to rupture the bellies of the muscles, and the patient has now a pretty good use of his arm. Another patient was improved by dissecting out the muscles and freeing the nerves, and, I think many of these cases of Volkmann's ischemic paralysis are due to nothing but pressure on the nerves. In such cases I would recommend dissecting out the nerves and clearing away the muscles. In contrast to Mr. Lane, I still believe the periosteum to be of great value in the formation of callus. However, I do not think that stripping away the periosteum causes death of the bone as was formerly taught, and in case of necessity I have no hesitancy in stripping it away. I feel that very little is known as to the cause of delayed union from internal diseases—outside of malignancy and diabetes. Locally, delayed union may be due to a faulty parallel position of the periosteum from the fragments lying side by side. In regard to Bier's passive hyperemia treatment, it may be of interest to say that its author now thinks so little of it that he has given it up. In fracture of the carpal bones, it is usually the scaphoid that is affected and often displaced. When the bone is merely cracked, there is frequently a union without any limitation of motion or thickening of the bone; and I generally do not operate in these cases. However, if the bone is broken, displaced and not reducible, we must cut down and remove the displaced fragments. In answer to Dr. Hobson, I might say that I do not feel that a broken chip from the outer edge of the tibia is characteristic of a Pott's fracture. I agree that to hold the ulna in place is one of the difficulties in treating a Colles' fracture. Recurrent luxation of the ulna, after an old Colles' fracture is one of the sequelæ at times, and in a bad case I would cut down and shorten the radio-ulnar ligaments. I do not believe in operating and undergoing any extra risk. In a large percentage of shoulder cases it is necessary, and one should operate before too much callus has formed.

PHILADELPHIA COUNTY MEDICAL SOCIETY

Meeting held Feb. 8, 1911

The President, DR. C. B. LONGENECKER, in the Chair

Pellagra

DR. SAMUEL STERN: The sense of security of the profession at present against the invasion of the pestilence is unwarranted. Pellagra will be found whenever one finds the factors necessary to cause the disease. The conditions are more widespread than heretofore credited, and it is the duty of the profession and the local and state health authorities to engage in a study of the disease in order that measures may be instituted to aid in its prevention and in the possible discovery of the cause and that a successful method of treatment may be found.

A Case of Pellagra Which Had Its Origin in Pennsylvania

DR. M. B. HARTZELL: G. R., aged 9, has spent all her life in Pennsylvania, most of it in Philadelphia. In August, 1909, she began to lose flesh, became melancholic, and some time later developed diarrhea. In the spring of 1910, a peculiar red-brown dermatitis of the hands and face developed. During her stay in the hospital there was considerable improvement, but soon after her discharge she grew worse and she died in October, 1910. All her symptoms were characteristic of pellagra. The eating of spoiled corn could be excluded as a causative factor with reasonable certainty. During the

summer of last year I had the opportunity to study the disease as it occurs in northern Italy, and from the observation of a small series of cases I am convinced that in mild cases and poorly developed ones, the diagnosis may be surrounded with considerable difficulty; and that it is a mistake to lay too much stress on dermatitis and pigmentation unless accompanied by other symptoms, especially gastrointestinal.

DISCUSSION

DR. FRANK C. KNOWLES: I feel that the diagnosis of pellagra is almost impossible unless there are present the three Ds: diarrhea, dementia and dermatitis.

DR. LEONARD D. FRESCOLN: I have had two cases in Philadelphia which were suspicious of pellagra; but I have never seen any cases which were diagnosed to my own satisfaction by the authority of those who had seen the real disease in Italy. There has been shown no positive proof by blood-tests that from my study and reading I believe we should have. To the three Ds mentioned by Dr. Knowles, there should be added a fourth, that of "death." My impression is that practically all these patients die. They improve for a time, but finally die without any other manifest cause of death.

DR. GEORGE E. PRICE: One is impressed with the great variety of mental symptoms that have been reported in association with pellagra. This is in a large measure due to the fact that many cases are found in the asylums for the insane. If there be any insanity of pellagra, it seems to me that it must from necessity follow the line of insanity of any infectious process. If we have a destructive agent sufficient to cause the changes that have been noted in the spinal cord in pellagra, we surely have a destructive agent sufficient to bring about pathologic changes in the brain and membranes. The cord changes have been those of a combined or diffuse sclerosis, comparable to the changes found in anemia and toxic states.

DR. A. E. ROUSSEL: My experience has been confined to four cases seen in South Carolina two years ago. The erythematous eruption in three of the four was marked. The necropsy findings were interesting in showing the earlier involvement of the membranes than of the cord proper. I feel that a thorough bacteriologic examination should be made before we assume definitely that every case of eruption of this or that type is pellagra. Even those experienced practitioners from neighborhoods where the disease abounds realize the difficulty of diagnosis in the early stages. Every safeguard should be adopted against the error of hasty diagnosis.

DR. S. STERN: Regarding the relation of insanity to pellagra, abroad the figures vary from 10 to 30 per cent. Over 80 per cent. of the patients are not insane. Probably a very small percentage show any nervous manifestations. While it is true that dermatitis, dementia and diarrhea are important factors, and that their presence aids in diagnosis, I do not attach the same degree of importance to them as do some. The addition of "death" is out of order, since we desire to make the diagnosis in the early stage of the disease and not at the end.

The Destruction of Surface and Cavity Neoplasms by Desiccation

DR. W. L. CLARK: My work up to the present time would appear to justify the conclusions: 1. A current from a static machine of large output with properly attuned accessories, is capable of destroying tissue by desiccation. 2. Malignant growths may be destroyed without opening blood or lymph channels, thereby preventing further metastasis, or the inoculation of healthy tissue in adjacent parts. In cancer of the breast, in which there is involvement of the axillary or cervical glands, operation is indicated on account of inaccessibility of the involved structure; but, on the first appearance of recurrence, there would be a great possibility of arresting activity. In cancer of the cervix I believe it to be more desirable than the curette and cautery. It is a perfect sterilizing, destructive, styptic deodorant and is penetrating. It can be employed with a minimal degree of danger and discomfort and may offer a chance of cure if taken in time. 3. It simplifies the treatment of hemorrhoids and other neoplasms of the mucous membranes. Employing the endoscope as an aid, cavity lesions may be treated successfully. Its applicability in the bladder has been shown, and it is perfectly possible to apply it deeply into the rectum, the interior of the uterus, the throat, the esophagus and even the stomach. 4. In warts, moles, pigmentations and in certain other cutaneous lesions, the destruction is a simple matter and the cosmetic effect good. Old pus sacs may be entered, destroyed and sterilized, as in pustular acne, etc. Sluggish ulcers may be stimulated to repair. 5. Fulguration produces its effect by a coarse kind of mechanical superficial charring, while oscillatory current desiccation produces a refined, penetrating, devitalizing effect by drying, and possibly, some biologic effect in addition which I cannot at the present time define.

DISCUSSION

DR. B. A. THOMAS: It is true that good effects are obtained by this method in the treatment of papillomata of the genito-urinary tract. In a case of papilloma of the bladder recently treated, the tumor has had but two applications of the current and shows improvement. In one case of papilloma of the rectum, ten days after a single treatment the papilloma could not be found.

DR. WILLIAM J. DUGAN: In my opinion, we have no proof of this "oscillatory" movement, and nothing is shown that has not been known for years. It seems to me that we have no scientific facts. The Roentgen ray, radium and fulguration, I believe, are palliative, but I do not believe that they cure cancer or sarcoma. If, after a diagnosis of such condition by a good pathologist, the patient is cured I shall accept the facts.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Boston Medical and Surgical Journal

March 16

1 *The Lumbosacral Articulation. An Explanation of Many Cases of "Lumbago," "Sciatica" and Paraplegia. J. E. Goldthwait, Boston.
2 Diverticulitis of the Sigmoid. W. P. Graves, Boston.
3 A Series of Cases of Syphilis Treated by Salvarsan at the Walter Reed General Hospital, District of Columbia. H. W. Jones, U. S. Army.
4 Liquid Air in Surgery. T. C. Beebe, Boston.

1. **The Lumbosacral Articulation.**—An experience in connection with the treatment of a patient with a spinal lesion was so disastrous to the patient and so distressing to Goldthwait, that a series of investigations were started by him in the hope of bringing some relief to the patient, and at the same time of preventing such happenings in the future. When very tired from a long stress of work, in lifting a heavy object, the patient strained his back, producing a distinct displacement of the sacro-iliac joint on the right side. The condition was recognized at once, and under nitrous oxid anesthesia the bones were replaced without difficulty. This was followed by a fairly normal recovery, so that in about three months the subjective symptoms had largely disappeared. At that time, after a fairly long car journey, the man carried a very heavy suit case in one hand, without change, for a distance of over half a mile, with the result that the back became painful. Two days later he consulted Goldthwait because of pain and sensitiveness in the lower back. At that time the sacro-iliac joints were shown to be strained, but the bones were not displaced. The next night, in turning over in bed, he felt a distinct slip exactly similar in all its sensations to that felt at the time of the first displacement. In the morning, after having a restless night, he was able to get up and take his usual tub bath. On trying to get out of the tub, in leaning forward and straining to get up, something slipped in his back, entirely different from anything he had before experienced. The body was drawn forward and to the left; there was intense pain, so that it was with great difficulty that he was able to get back to his room, and the suffering continued until he was seen by Goldthwait

four hours later. At that time the body was held bent forward and to the left. There was extreme tenderness in the sacral region, with pain extending into the legs, the right being much worse than the left. All efforts to give the patient relief failed. The more the case was studied, the more it seemed that some mechanical element must be the real difficulty, and that the point of pressure was probably somewhere below the giving off of the lumbosacral cord, although not much below this because all of the nerves making up the cauda equina below this point were involved. It was obviously spinal, since no lesion or involvement of the nerve roots or of the sacro-iliac joints could explain so complete a bilateral condition. The more the case was studied, the more definite the lumbosacral articulation seemed to represent the seat of the difficulty, and this was strengthened by the fact that when the patient was placed on his back to have the jacket applied a few days after a laminectomy there was something of the same sensation that was present when the first jacket was applied, and this was at once relieved by raising the buttocks. A similar sensation also developed when he was placed on the back to have a skiagraph taken.

This led Goldthwait to make a very careful and thorough study of the mechanics and anatomy of the lumbosacral articulation. He found that the lumbosacral articulation varies greatly in its stability, depending on peculiarities in the formation of the articular processes and of the transverse processes; that these peculiarities not only result in less than the normal strength of the joint, but may represent mechanical elements, which not only produce strain and cause pain, but may lead to such great instability that actual displacement of the bones may result, with at the same time the separation of the posterior portion of the intervertebral disk. In such displacement, if the fifth lumbar vertebra slides forward on the sacrum, spondylolisthesis, the condition is usually compensated for, and pressure on the cauda equina or the nerve roots does not occur. If the displacement be on one side, the spine must be rotated and the articular process of the fifth drawn into the spinal canal with such narrowing that paraplegia may result, or the crowding backward of the intervertebral disk alone may be so great as to cause similar paraplegia, but of more gradual development. Weakness of the joints or the partial displacements may cause irritation of the nerves inside or outside of the canal and produce the bilateral leg pains often called sciatica.

Medical Record, New York

March 18

5 Hygiene of Public Conveyances. S. A. Knopf, New York.
6 Importance of the Thread Impregnation Test for the Recognition of Ulcers of the Upper Digestive Tract. M. Einhorn, New York.
7 Two Cases of Ainhum. T. Abbe, Washington, D. C.
8 Criminal Abortion. A. D. Strasser, Arlington, N. J.
9 A Sociologic Experiment. G. F. Lydston, Chicago.
10 Multiple and Comminuted Fractures of the Metatarsal Bones in a Child. M. Leale, New York.
11 Sudden Death Following Spinal Puncture for Diagnosis. E. M. Colie, New York.
12 Short Talks with My Students and Others: Random Suggestions for the Younger Practitioners. R. H. M. Dawbarn, New York.

New York Medical Journal

March 11

13 Clinical Results from Use of Salvarsan. H. Fox and W. B. Trimble, New York.
14 Simple Apparatus for Intramuscular Administration of Salvarsan at the Bedside. A. L. Wolbarst, New York.
15 A Lanolin and Oil Emulsion of Salvarsan for Intramuscular Injection. J. G. Burke, Pittsburg.
16 Technic in Adenoid and Tonsil Operations. L. D. Alexander and J. T. Gwathmey, New York.
17 An Extracerebral Tumor in the Region of the Hypophysis Cerebri. F. J. Farnell, New York.
18 A Case of Colon Bacilluria in a Twelve-Year-Old Girl. J. Pedersen, New York.
19 The Effervescence Test for Gastric Acidity. A. L. Benedict, Buffalo.
20 The Eradication of Plague from Large Cities. C. W. Vogel, Washington, D. C.
21 Phrenology and Its Founder: The Claims of Franz Joseph Gall on the Homage of Scientific Posterity. J. Knott, Dublin.

March 18

22 Surgical Aspect of Gastric and Duodenal Ulcer. J. B. Deaver, Philadelphia.
23 Stomach Disorders Requiring Surgical Intervention from the Viewpoint of the Internist. C. D. Aaron, Detroit, Mich.
24 *Treatment of Tuberculosis by Deep Muscular Injections of Mercury. B. L. Wright, U. S. Navy.
25 Laboratory Notes on the Presence of Fats and Lipoids in the Lesion of Rhinoscleroma and on Variations in Its Bacteriology. J. Wright and L. W. Strong, New York.
26 *Relation of Gall-Stones to Cancer of the Bile Tract. J. A. McGlinn, Philadelphia.
27 *Irrigation Treatment in Septic Abortion. H. Weil, New York.
28 Individual Immunity. W. Lintz, Brooklyn, N. Y.
29 *Pneumothorax with Acute Abdominal Symptoms. E. J. G. Beardsley, Philadelphia.
30 Pinworms and Caraway Seed in Infant's Appendix. I. Kornblüh, New York.

24. **Mercury in Tuberculosis.**—During the past three years Wright has reported several hundred cases of chronic tuberculosis successfully treated by this method; among them were exhibited local lesions of practically all the organs and tissues, excepting the brain. He believes that the cases reported by himself and others demonstrate the fact that tubercle bacilli have a strong affinity for the succinimid and bichlorid of mercury. He has reported a number of cases in which three or four injections of one or the other of these salts caused the tubercle bacilli to disappear from the sputum and feces, and the cessation of the most profound toxemia. He now reports a case of acute miliary tuberculosis treated in this manner, which terminated in recovery and apparent cure, and which, in his opinion, emphatically and unquestionably demonstrates the parasitotropic and antitoxic properties of mercury in relation to tuberculosis. In less than eight weeks after the onset of the disease, at a time when 95 per cent. of these patients are either dead or dying, and six weeks after the administration of the first injection, the patient, a seaman, resumed his full duties on board ship, apparently cured. This result prompts Wright to say that in mercury we have the chemical affinity of the tubercle bacillus, and he expresses the hope that experimentation will sooner or later develop a command of mercury for which these organisms will have even a stronger affinity than they display for the succinimid.

26. **Gall-Stones and Cancer.**—This report is based on a study of over 9,000 post-mortem records in the Philadelphia General Hospital. In the report McGlinn has included cancer of the liver, pancreas and duodenum, on account of their close relationship to the biliary passages. In all, there are records of 456 cases of cancer. The liver was the site of primary cancer in twenty-six cases. Gall-stones were present in the gall-bladder in three cases and in the cystic duct in one case. The pancreas was the site of primary cancer in thirty-six cases. Gall-stones were present in the gall-bladder in four cases and in the gall-bladder and all the bile-ducts in one case. Gall-stones, then, were present in eight of the eleven cases of primary cancer of the gall-bladder. In primary cancer of the bile-ducts stones were present in three of the five cases. In the entire series of over 9,000 post-mortem examinations gall-stones were found in 507 cases. Studying these few cases, McGlinn says, it would seem that gall-stones play an important part in the etiology of cancer of the gall-bladder and bile-ducts, but in cancer of the liver and pancreas they are only incidental. They occurred no more frequently in cancer of these two organs than in cancer of more remote organs. There was a record of but one case of cancer of the duodenum; stones were not present.

27. **Irrigation in Septic Abortion.**—Weil urges continuous or frequent irrigations on the basis that absorption from the lochia is an important factor in the production of the toxemic element of puerperal sepsis.

29. **Pneumothorax.**—In the case cited by Beardsley, the onset of an acute pneumothorax caused violent abdominal symptoms which closely simulated those of perforative peritonitis.

Lancet-Clinic, Cincinnati

March 11

31 Operative Steps in Closure of Cleft Palate. G. V. I. Brown, Milwaukee, Wis.
32 Glioma of the Retina. S. C. Ayres, Cincinnati.
33 Double Glioma of Retina. K. L. Stoll, Cincinnati.
34 Value of Test-Meal in Stomach Diagnosis. F. L. Rattermann, Cincinnati.
35 A Simple and Economic Outfit for Intravenous Administration of Salvarsan. A. W. Nelson, Cincinnati.

March 18

36 Finger Enucleation of the Tonsils. W. Mithoefer, Cincinnati.
37 Gradual Evolution of a Sane Therapy in Tuberculosis. F. M. Pottenger, Monrovia, Cal.
38 Recognition of Incipient Pulmonary Tuberculosis. A. Faller, Cincinnati.

California State Journal of Medicine, San Francisco

March

39 Acute Cholecystitis. W. W. Kerr, San Francisco.
40 Systemic Gonorrheal Infection. W. P. Willard, San Francisco.
41 *Relief of Glaucoma by Subconjunctival Sodium Citrate Injections. H. G. Thomas, Oakland.
42 *Operative Treatment of Fractures of the Neck of the Femur. S. J. Hunkin, San Francisco.
43 The Squirrel Plague Problem. G. W. McCoy, San Francisco.
44 Artificial Cultivation of the Lepra Bacillus in Hawaii. H. E. Alderson, San Francisco.
45 A Case of Hernia in a Child. T. G. Dodds, Oakland.
46 Acute Lymphatic Leukemia. J. M. King, Los Angeles.
47 Non-Union of Fracture. A. W. Morton, San Francisco.
48 Diseases and Injuries to Knee-Joint and the Treatment. E. H. Smith, San Francisco.
49 Present Status of Cancer Investigation. P. K. Brown, San Francisco.
50 Status of Vaccine Work in Cancer. P. K. Gilman, Manila, P. I.
51 Operative Treatment of Hyperthyroidism. W. I. Terry, San Francisco.
52 Fracture of the Femur. E. Smith, San Francisco.
53 Four Cases of Tumor of the Cerebellopontile Angle. M. B. Lennon, San Francisco.
54 Operation to Expose the Cerebellopontile Angle. H. M. Sherman, San Francisco.
55 Three Cases of Probable Cancer Transplantation from the Use of the Gilman Vaccine. W. B. Coffey, San Francisco.

41. **Relief of Glaucoma.**—During the past year and a half, Thomas has been using subconjunctival injections of sodium citrate to reduce the tension. Its use was suggested by the antagonism discovered to exist between the effect of acids and neutral salts on the imbibition of water by colloids. The method consists in the injection of from 5 to 15 drops of a 4.05 per cent. to a 5.41 per cent. solution of the chemically pure crystallized sodium citrate, preceded by the instillation of a cocain and an adrenalin solution into the conjunctival sac. During this time he has treated nine cases of primary and two of secondary glaucoma; all but one occurred in women. As a group, the primary cases were in individuals over the age of 45, and concerned thin, ill-nourished women of sedentary habits. The effect of these injections in reducing tension was unfailing and without evil consequences. After each injection there was a relief of the symptoms of glaucoma for from three days to several weeks. Thomas believes that the advantages of the subconjunctival sodium citrate injections over the other recognized surgical or medical procedures are evidently to be sought in their simplicity and in the promptness with which they produce results. Clearly these injections do not constitute a "cure" for glaucoma, but no more do iridectomies, sclerotomies or any other procedures which merely aim to reduce tension.

42. **Operative Treatment of Fractures of Neck of Femur.**—The technic of the operation followed by Hunkin is described as follows: The patient is placed on the back with each leg protected and wrapped separately. The assistant marks the line of the femoral artery just below Poupart's ligament. A crescent incision from 9 to 15 cm. in length, depending on the fatness of the patient, is swept from the anterior superior spine; this incision reaches the muscular layer. In fat subjects the incision divides a little of the rectus femoris and sartorius. In thinner subjects the muscle is not divided by reason of the incision being shorter. A few strokes of a dry dissector and the pulling inward of the sartorius brings one at once on the capsule of the hip joint. A little rotation of the leg, with a finger on the capsule, locates the anatomy and demonstrates the fracture. The capsule is then opened with a knife and the fragments are exposed. A pair of deep retractors are introduced when direct observation of the fragments can be made. The internal fragment can be rotated with the hand or with a dry dissector and the cartilage of the head observed. The external fragment moves, of course, with the leg. The leg is then manipulated until the fractured ends are in contact and placed in that position, whatever it may be in which they appear less likely to slip. In recent fractures this is usually in the extreme abducted position of Whitman. One assistant is now given the sole duty of maintaining this corrected position, and the parts are fully exposed so that the assistant can see the anatomic landmarks of the pelvis.

A tiny puncture with a bistoury is then made over the trochanter, from 4 to 5 cm. below the tip, into the bone, and a steel (sometimes silver-plated) nail, 8 cm. long, is driven through the trochanter and neck into the head. When the small head of the nail approaches the skin a steel "set," cupped to fit the head of the nail, is applied to the nail, which is driven firmly home. After the nail is located Hunkin often drives one of his staples across the line of fracture, the inner arm going into the head just at the cartilage rim, and the outer arm into the neck to the outer side of the fracture. The capsule is then closed as tight as possible with firm catgut and the wound closed in the usual manner. A plaster-of-Paris spica is then closely applied from toes to mammary line, during the setting of which firm pressure is made downward and forward from above and behind the trochanter.

Journal of the South Carolina Medical Association, Charleston

February

56 Life of Dr. J. Marion Sims. J. H. Allen, Spartanburg.
57 Lumbar Puncture in Children. T. W. Ely, Charleston.
58 The Tonsil Question. S. H. Griffith, Gaffney.
59 The Uncinariasis Problem a Real One. W. A. Plecker, Hampton, Va.

Bulletin of the Manila Medical Society

January

60 *Poisoning from Datura Alba Seeds. F. B. Bowman, Manila.
61 Hemorrhagic Disease of New-Born Infants. F. W. Vincent, Baguio, P. I.
62 *Philippine Contact-Poisonous Plants. C. B. Robinson, Manila.
63 *A Case of Tetanus from "Fuentes." R. Llamas, Manila.

60. **Poisoning from Datura Alba Seeds.**—In Manila and other parts of the Philippines the plant *Datura alba* (Nees) grows in great abundance, and from this plant hyoscin may be obtained in large quantities. The alkaloid is found in all parts of the plant, but in greater amount in the seeds than elsewhere. One of the chemists employed in the Bureau of Science of Manila, while conducting experiments with *Datura alba*, ate approximately a gram of the seeds. He probably took in all 5 milligrams of the alkaloid, and because of the severity of the symptoms produced his case is reported. After half an hour he noticed that his mouth seemed dry and in an hour felt somewhat flushed and noticed that his pulse was rapid. When Bowman saw him an hour later the pupils were widely dilated, he was nervous and restless and laughed most of the time. His face was flushed, pulse rapid—130 a minute. His speech was scanning in character and he was unable to make connected sentences. Later he became drowsy and had hallucinations, and as the symptoms seemed to be becoming more severe, he was sent to the hospital. After arriving there he became very drowsy and was soon asleep. The skin was very dry, though micturition seemed to be excessive. He was given a hot pack and remained asleep until the next morning. On awakening, except for some weakness, he seemed to be quite well again. He still had some trouble in completing his sentences, and he remembered nothing that had happened after the commencement of his symptoms. This case of poisoning was severe, but not serious. In cases of poisoning, Bowman says, the stomach should be evacuated as soon as possible. Pilocarpin in large doses has been used with alleged good results, but it is necessary to give so much to counteract even small doses of alkaloids of the atropin series that its use as an antidote is questionable. Hot packs should be used in severe cases, and any respiratory or cardiac symptoms watched carefully and treated.

62. **Philippine Contact-Poisoning Plants.**—With the purpose of ascertaining the facts concerning the possibility of poisoning by the hairs of the leaf-sheaths of bamboo, the following experiment was made by Robinson. The bamboo was that known as cauayan quilling, a name which seems to be used only for *Bambusa vulgaris* Schrad; it is widely distributed in the tropics, both eastern and western, and had been cut the day before. About 10 a. m., August 11, numerous hairs were rubbed on the upper arm. By noon the skin was reddened around the place, but no pustules could be detected. In the afternoon this reddening disappeared, and there were bare traces of pustules. The first itching sensation was noticed about 10:30 p. m., but the pustules were still few and small. By the next morning they were fairly plentiful, but small, with the surrounding skin reddened, without evident sensation. This condition continued throughout that day and the next, with occasional slight itching, hardly perceptible except

on rubbing. From August 14 to 17 there was a gradual decrease, the pustules being still evident, without itching, with slight yellowish discoloration of the skin; on the morning of August 18 they were at the limit of visability, and would not have been noticed if their history had not been known. The immediate incentive to the experiment was the finding of similar pustules on the hands, a day after gathering bamboo material. The pustules disappeared without treatment, after a comparatively short time. While the bamboo, then, may be considered poisonous, the effect is not severe, and should not lead to anxiety.

A definite test on the nettle-like plant, *Fleurya interrupta* (Linn.) Gaudich., showed that the stinging sensation was felt at once, becoming moderately severe. After about five minutes, pustules began to form, but the pain ceased about the same time. The pustules soon disappeared, without treatment.

A recent involuntary contact with *Laportea meyeniana* (Walp.) Warb., lipa or lipang calabao, while causing immediate pain, did not result in any development of pustules; this is in agreement with experiments of others, even in severe cases of stinging by this plant.

63. **Tetanus from "Fuentes."**—"*Fuente*" is a cure practiced by the arbolarios or unlicensed physicians in the Philippines on persons suffering from stubborn diseases, such as beriberi, tuberculosis, anemia, etc., which, they think, physicians have failed to cure. Llamas says that it is a common belief among the poor class of people (and of some of the middle class), especially in the provinces, that they are relieved from their long suffering by opening a "fuente," as they express it, either on the arm, thigh or leg. Undoubtedly, this custom also prevails in Manila, having probably been introduced from the provinces. To start the infection, a mixture of lime and Chinese soap, in the proportion of two to one, is made into a "bolita" (pill), the diameter of which varies from 0.5 to 1 cm. This pill is then placed on the fleshy, least vascular part, usually the arm or leg, and is held in place by a tight bandage for twenty-four hours, or until a blister is formed. Next day another "bolita" of the same size (made of garlic) is placed on the surface of the previously opened blister, the wound dressed as before and the dressing is not removed until pus is produced and a cavity formed. The same effect may be produced by burning the skin directly with a lighted cigarette. The cavity once formed, another "bolita," made of Chinese wax or betel nut, is put in and covered with a piece of Chinese blotting paper. A hole is made in the middle of the paper and a piece of banana leaf is put on next and loosely bandaged. By the pressure the cavity receives, it becomes so deep that the pill soon has a cavity large enough to hold it.

Each part of the dressing has its own purpose. The pill is to maintain constant pressure on the cavity and to prevent any healing. The Chinese blotting paper absorbs any secretion, the banana leaf protects the wound from becoming wet and the bandage keeps out the air. The wound is washed morning and afternoon with warm guava water or ordinary tepid water and the dressing is changed. It is supposed that the secretion removes the impurity of the blood which has caused the sickness. If the "fuente" fails to cause secretion, the sickness is said to be incurable; if the patient gets well, the "bolita" or "pelotilla" is removed and the wound treated as before until it heals. Last May, Llamas treated a case of tetanus which was contracted through a "fuente" in the right leg of a woman suffering from beriberi and anemia. He thinks that an investigation would show that many cases of tetanus originate from infection due to the application of "fuentes."

Journal of the Arkansas Medical Society, Little Rock

February

64 *Postanesthetic Acidosis. J. G. Eberle, Fort Smith.
65 A Plea for More Accurate Diagnosis in Gynecologic Conditions. W. A. Snodgrass, Little Rock.
66 Cesarean Section Under Unfavorable Conditions. A. G. Harrison, Little Rock.
67 Cesarean Section. G. S. Brown, Conway.
68 *Preventable Blindness. J. G. Watkins, Little Rock.
69 Gunshot Wounds of the Abdomen. R. C. Dorr, Batesville.
70 Medical Organization. M. L. Norwood, Locksburg.

64 and 68. Abstracted in THE JOURNAL, June 11, 1910, p. 1992.

Journal of the American Public Health Association, Columbus, Ohio

February

71 *Preventive Principles in the Field of Mental Medicine. W. A. White, Washington, D. C.
72 *Prevention of Feeble-Mindedness. E. R. Johnstone, Vineland, N. J.
73 Sanitation of Bakeries and Restaurant Kitchens. C. B. Ball, Chicago.
74 *Saving Children from Milk-Borne Diseases. N. Straus.
75 Training of Janitors in Sanitary Care of School Premises. H. C. Putnam, Providence, R. I.
76 Electrolytic Production of Sodium Hypochlorite. C. P. Hoover, Columbus, Ohio.
77 An Emergency Hypochlorite Plant. H. A. Whittaker and J. A. Childs, Minneapolis.
78 The Hyperchlorite Treatment of Water at Minneapolis. J. F. Corbett, Minneapolis.
79 *Resistance of Certain Bacteria to Calcium Hypochlorite. F. F. Wesbrook, H. A. Whittaker and B. M. Mohler, Minneapolis.

71 and 72. Abstracted in THE JOURNAL, Sept. 24, 1910, p. 1135.

74. Abstracted in THE JOURNAL, Sept. 17, 1910, p. 1044.

79. **Resistance of Certain Bacteria to Calcium Hypochlorite.**—On treating Mississippi River water even with large amounts of calcium hypochlorite, the authors found it impossible to effect complete sterilization. The predominant organism remaining after treatment was found to be a spore-bearing bacillus. Treatment of this organism in pure culture has demonstrated a great resistance of certain spore-forming bacteria to this chemical, which may be one of the factors, if not the most important one, in the failure to produce complete sterility, and is probably the cause of the later rise in bacterial count after treatment in certain experiments. Results on the comparative treatment of *B. coli* and *B. typhosus* in pure culture show, in a general way, that the sum total of amounts of calcium hypochlorite required to exterminate both organisms is about the same, yet in the selection of individual cultures some variation in the amounts actually required is indicated. The results further demonstrate in a general way that pending the formulation of better technical methods we may continue to regard the presence or absence of colon bacillus in treated waters as the index of possible infection with, or freedom from, the typhoid organism. The authors venture to express the hope that investigations may soon be undertaken in this country or abroad, which will seek to determine the effect of the variable factors responsible for variations in efficiency of sterilization procedures in which hypochlorites are employed.

New Mexico Medical Journal, Las Cruces

February

80 Preventive Medicine in the Southwest: Its Aims and Limitations. J. W. Flinn, Prescott, Ariz.
81 A Case of Traumatic Jacksonian Epilepsy. M. K. Wylder, Albuquerque.
82 Splanchnoptosis and Its Surgical Treatment. H. A. Ingalls, Roswell.

Archives of Internal Medicine, Chicago

March

83 *Two Cases of Adams-Stokes' Syndrome with Heart-Block. W. S. Thayer, Baltimore, and F. W. Peabody, Cambridge, Mass.
84 A Case of Poisoning Due to Eating Poison-Hemlock (Cicuta Maculata). A. Egdahl, Menomonie, Wis.
85 *The Opsonic Index in the Diagnosis of Mixed Infection in Pulmonary Tuberculosis. R. T. Pettit, Ottawa, Ill.
86 Entamœba Tetragena as a Cause of Dysentery in the Philippine Islands. C. F. Craig, Washington, D. C.
87 *The Acidosis Index. T. S. Hart, New York.
88 Acute Yellow Atrophy of the Liver. E. Novak and E. L. Whitney, Baltimore.
89 Allergy. C. E. von Pirquet, Baltimore.

83. **Adams-Stokes' Syndrome.**—Two cases of heart-block which came under the observation of Thayer and Peabody during the past year presented features of unusual interest: Case 1.—A man of 53, with rather thickened arteries and a slightly enlarged heart, with evidences of sclerosis at the aortic ring (rough systolic murmur), showed: (1) Syncopal and convulsive seizures, associated with bradycardia and marked irregularity in the size and sequence of the beats. These occurred often in groups of three or more in rapid succession, followed by intermissions amounting sometimes to nearly or quite half a minute in length. The auricular, which could often be counted clearly in the neck, was usually 100 or above. Long intermissions in the ventricular pulse were usually associated with long periods of apnea. No wholly satisfactory tracings were taken during paroxysms of this sort. Those which were

made suggest a complete dissociation. (2) Similar attacks, usually without convulsions, in which the ventricular beats occurred in groups of from two to three to ten, always at the same rate, and apparently following the same impulses as the auricular beats. These groups of beats were separated sometimes by intermissions amounting to as much as fifteen seconds. The auricular pulsations could usually be counted in the neck, and were sometimes as slow as 59. Sphygmographic tracings showed that these groups of beats consisted of a primary ventricular contraction, apparently automatic, which was succeeded shortly by a series of beats which followed the preceding auricular contractions after an a-c conduction time of approximately normal duration. During these groups of beats the auricular rate became progressively slower without lengthening of the conduction time, until finally the ventricular impulses stopped. The retardation of the auricular impulses continued during the next several auricular contractions, after which it became more rapid. Such attacks yielded on three occasions to the administration subcutaneously of atropin, gr. 1/60 (0.001 gm.). The auricular rate after atropin was slower than it was before, but more rapid than the rate of several slow beats at the time of onset of the periods of ventricular intermission. (3) Periods during which there was a fairly regular ventricular rhythm of about thirty to the minute with a rather rapid auricular rate (100 to 120). The tracings show an apparently complete auriculoventricular dissociation. One of these attacks failed to yield to atropin, gr. 1/30 (0.0021) given subcutaneously. (4) Periods during which intermission in the ventricular pulse occurred at varying intervals and lasted for varying periods of time, followed usually by an apparently spontaneous ventricular contraction, which was succeeded by one or more beats after a normal a-c conduction time. (5) Periods between these attacks in which the heart's action was regular, and the sphygmographic tracings revealed no abnormalities, the a-c interval remaining always normal. Although there have been seven or eight grave attacks of Adams-Stokes' syndrome in a year and a half, the patient is to-day in good condition.

CASE 2.—A man, aged 83, for three or four years had had dyspnea on exertion and attacks of giddiness and faintness in which he had fallen to the street. Following treatment with infusion of digitalis, but persisting for more than a month after its discontinuance, there occurred periods of bradycardia, during which the pulse was sometimes nearly regular at about 40 and at other times irregular. The pulsations of the auricles observed in the neck were more frequent than those of the ventricles. The auricular pulsations further manifested themselves by a slight audible sound and sometimes by a palpable and even visible impulse at the apex. The cardiosphygmographic tracings showed a regular auriculoventricular rhythm, with much-prolonged a-c time, amounting sometimes to almost 0.6 of a second. At times there is characteristic dropping out of ventricular beats, associated with progressive prolongation of the a-c period and failure of conduction. At other periods there is an attempt to set up a spontaneous ventricular rhythm at the rate of about 40, a rhythm, however, which is not quite regular because of an occasional precocious ventricular contraction due, apparently, to the passage of a stimulus through the auriculoventricular bundle. The administration of atropin, gr. 1/30 (0.0021 gm.), resulted in the complete disappearance of irregularity and the development of a regular auriculoventricular rhythm with prolonged a-c conduction time. Pressure on the vagus resulted in the dropping out sometimes of alternate and, occasionally, of two successive ventricular beats. There was slight slowing of the auricular rate, with no apparent modification of the a-c conduction time. On one occasion, the administration of atropin, gr. 1/30 (0.0021 gm.), was followed by rapid action of the heart with alternating pulse. A year after the termination of these studies the patient was seen again, with an apparently complete auriculoventricular dissociation, the ventricular rate, however, being about 40. The authors regard this case as a typical instance of disease of the bundle of His in a hypertrophied and dilated heart.

85. **The Opsonic Index in Pulmonary Tuberculosis.**—Pettit does not regard the opsonic index as being an accurate method of diagnosis of mixed infection in pulmonary tuberculosis.

87. **The Acidosis Index.**—The method devised by Hart depends on the intensity of the color developed by adding ferric chlorid to urine containing the acetone bodies (Gerhardt's reaction).

St. Louis Medical Review

February

90 Tuberculosis: Its Nature, Causes and Prevention. J. B. Huber, New York.
91 Abdominal Pain. C. P. Thomas, Los Angeles.
92 The Most Vital Point in Anesthetizing. E. H. Williams, San Francisco.
93 Malignant Degeneration of Chronic Ulcers of the Leg. (So-Called Marjolin's Ulcer.) H. L. Kretschmer, Chicago.
94 Professional Confidences. E. S. McKee, Cincinnati.
95 Gastric Ulcer. J. G. Sherrill, Louisville, Ky.
96 Leprosy. J. Knott, Dublin, Ireland.
97 Medical Men of the Orient. A. H. Moodricker, Wabash, Ind.
98 Aims and Methods of Medical Education in America. G. Richter, St. Louis.

Colorado Medicine, Denver

March

99 Mild or Obscure Syphilis. A. J. Markley, Denver.
100 Nature of Prolapse of Genitalia in Woman. C. S. Elder, Denver.
101 Cancer of the Stomach. J. R. Arneill, Denver.
102 *Congenital Defect of the Clavicle. H. R. McGraw, Denver.
103 Colles' Fracture. L. W. Ely, Denver.

102. **Congenital Defect of Clavicle.**—Five or six days after the birth of McGraw's patient, the nurse noticed a slight swelling under the left ear. On examination this swelling seemed to be the sternocleido mastoid muscle in a state of constant contraction. Beneath this swelling and somewhat external to it there was a small knob, which proved to be a rudiment of the clavicle about 1 inch long. The outer end was attached to the acromion process of the scapula, and the small rounded prominence was freely movable. All the inner portion of the clavicle was missing. The shoulder could be drawn forward and inward to the median line, and the scapulæ projected behind. At this time it was thought that this bony knob or enlargement might be a beginning osteosarcoma. Dentition has been perfectly normal in every respect. At the age of 17 months a second radiogram was made and showed the clavicle absolutely perfect. This case is regarded as being of interest chiefly through its demonstration of the fact that there must be more than one center of ossification in the clavicle, and that the delay in development through some embryologic accident did not inhibit the subsequent growth of the center or centers forming the nucleus for the inner portion of the clavicle in the case cited. Careful inquiry has been made into the matter of heredity brought forward so prominently in the cases of Marie, Sherman and King, but with an absolutely negative result; neither was there association with rickets.

Yale Medical Journal, New Haven, Conn.

February

104 Results in Sanatorium Treatment of Tuberculosis. W. B. Bartlett, Hartford, Conn.
105 Wind Instruments and Longevity. J. F. Rogers, New Haven, Conn.
106 A Case of Long-Standing Nephritis in a Boy. G. Blumer, New Haven, Conn.
107 Periodic Attacks of Indigestion in Children, Accompanied by Presence of Diacetic Acid in the Urine. W. G. Murphy, E. Hartford, Conn.
108 Relative Value of Symptoms, Physical Signs, Tuberculin and the Roentgen Ray in Diagnosis of Tuberculosis. H. F. Stoll, Hartford, Conn.

Annals of Surgery, Philadelphia

March

109 *Parathyroid Implantation in Treatment of Tetania Parathyreopriva. W. H. Brown, Victoria, Australia.
110 Gastrostomy as a Curative Measure Per Se in Non-Malignant Strictures of the Esophagus. J. R. Eastman, Indianapolis.
111 Operative Treatment of Wounds of the Heart. G. W. W. Brewster and S. Robinson, Boston.
112 *Importance of Preserving the Gall-Bladder in Operations on the Gall-Passages. J. W. Long, Greensboro, N. C.
113 Retroperitoneal and Mesenteric Cysts of a Simple Nature. G. H. Makins, London.
114 *A New Abdominal Incision to Facilitate Intra-Abdominal Operations. H. A. Kelly, Baltimore.
115 Supernumerary Kidney Seat of Cystadenoma. F. Cobb and H. G. Giddings, Boston.
116 Damage Done to the Kidney by Operation. J. E. Moore and J. F. Corbett, Minneapolis.
117 *Empyema of the Ureter. H. A. Fowler, Washington, D. C.
118 Control of Urinary Drainage After Cystotomy. H. H. Sinclair, Walkerton, Ontario.
119 Technic of Median Perineal Prostatectomy. S. Alexander, New York.

120 *Operation for Stiffening the Knee-Joint. R. A. Hibbs, New York.
121 *Intussusception in the Adult. S. H. Watts, Charlottesville, Va.

109. **Tetania Parathyreopriva.**—In Brown's case, the implantation of monkey parathyroids was the only measure which with any permanence put the patient in better condition. Finally, however, it became necessary to transplant human parathyroids. After this procedure, the patient's progress toward recovery was continued and uneventful.

112. Abstracted in THE JOURNAL, Jan. 7, 1911, p. 67.

114. **Removal of Skin-Fat Wedge.**—The value of removing wedges of skin and fat in patients who are not troubled with obesity, but simply and solely for getting rid of a part of the thickness of the abdominal wall and making the field of operation more accessible, is emphasized by Kelly. An oval or an elliptical transverse excision is made, cutting right down to the strong fascia overlying the rectus and the oblique muscles. All bleeding vessels ought to be tied carefully. When this piece of skin and fat is removed the operator then finds it much easier to open the abdominal wall and operate than in a similar case in which he has to retract this embarrassing mass of tissue as well. Kelly closes such a wound with a fine catgut suture, catching a distinct layer of fascia about the middle of the fat, the silkworm-gut sutures uniting both skin and fat.

117. **Empyema of the Ureter.**—Fowler's patient, a man, gave a history of calculous diseases of fifteen years' duration. The onset was marked by symptoms referable to the kidney. He had passed a great many calculi. Perineal section was performed for an impacted calculus in the urethra. Another stone was removed from the urethra by milking it forward to the meatus. Two litholapaxies were performed. The left kidney was removed on account of calculous pyonephrosis. Empyema of the left ureter developed as a result of the presence of a calculus, which was demonstrated in the first Roentgen-ray examination. This calculus was forgotten and consequently overlooked at the time of the left nephrectomy. Infection of the right kidney took place, pyonephrosis developed, and complete anuria occurred suddenly three years later. Anuria was complete for three days, and was due to the plugging of the ureter with pus. Renal retention was partially relieved by massage of the kidney and along the ureter, thus dislodging the plug of pus filling the ureter. Anuria again developed and nephrotomy of the remaining kidney was done. This kidney was greatly distended with urine and pus. No stone was demonstrated by the Roentgen ray and none was found at operation. The parenchyma formed a mere shell of tissue less than 1 cm. thick. Recovery was prompt and complete. Since the operation the patient has passed one stone and another has been removed from the bladder by litholapaxy. The skiagraph now shows a stone in the left ureter of the same shape, size and location as shown in the plate taken three years ago. Normal peristalsis was observed in this ureter three years after the complete removal of the corresponding kidney.

120. **Operation for Stiffening Knee-Joint.**—Hibbs believes that the knee-joint has not been stiffened frequently enough, especially among the classes of people seen in the dispensaries, who are, in most instances, wage-earners, and the necessity of wearing some kind of brace permanently is troublesome and expensive to them. This is probably due to the fact that attempting to stiffen this joint by the old method of doing practically an excision has not been very successful. In the first place, the removal of a sufficient amount of cartilage from the femur and tibia to secure bony surfaces for approximation shortens the leg about 1½ inches, which, with the shortening already present in these cases, is a serious consideration. And in the second place, the removal of the ligaments makes difficult the prevention of deformity during the long period, a year or more, before there is solid bony union. This led Hibbs, on Jan. 15, 1909, to perform an operation which obviates these disadvantages. It was that of mortising the patella, after it was denuded of its periosteum and cartilage, into a space prepared for it by the removal of the cartilage, just anterior to the center of the tibia and femur. Such a space may be secured without injury to the crucial ligaments or to the epiphysis of either bone. With the patella in this position, a perfect bony bridge is thus formed between the tibia and the femur. The patella in the first three cases was put in transversely, and in the next four horizontally. In all these cases, in from five to six months there was solid bony ankylosis, which has been maintained a sufficient length of time since the removal of the support to consider it permanent.

It then occurred to Hibbs, that if the patella were placed horizontally in a space prepared for it, and then if the periosteum were carefully preserved in its removal from the patella and brought down over the freshened area and stitched to the periosteum around the edges of the tibia and femur, there would be reproduced from this periosteum new bone, so that the bony bridge would be larger and stronger. In the last three cases, this procedure has been adopted, and in each case there has been a reproduction of bone from this periosteum, as has been unmistakably shown by skiagraphs. The advantages of the latter procedure are obvious. In the first place, there is less likelihood of the patella slipping out of its bed, and in the second place, there is secured, through the reproduction of new bone, a larger and stronger bony ridge, and the weight may be safely borne on the leg earlier with advantage, and all support removed sooner.

121. Abstracted in THE JOURNAL, Jan. 14, 1911, p. 140.

Albany Medical Annals

March

122 Experiences with Salvarsan. W. S. Gottheil, New York.
123 When Should the General Practitioner Measure the Blood-Pressure? T. C. Janeway, New York.

West Virginia Medical Journal, Wheeling

March

124 *A Remarkable Case of Hysteria. T. Diller, Pittsburg.
125 Social Hygiene and the Physician's Relation Thereto. J. C. Irons, Elkin.
126 Ether Anesthesia. R. H. Bullard, Wheeling.
127 Adenoids. P. L. Gordon, Charleston.

124. **A Case of Hysteria.**—This case was characterized by insane conduct, somnambulism, disordered personality, dream-like states and amnesia.

Illinois Medical Journal, Springfield

March

128 Heredo-Syphilitics and Their Detection. A. Ravold, St. Louis.
129 Relation of Vasectomy to Eugenics. J. C. Hoag, Chicago.
130 Treatment of Delayed Resolution of Pneumonia. J. M. Patton, Chicago.
131 Diagnosis of Renal and Ureteral Calculi. D. N. Eisendrath, Chicago.
132 Bronchoscopy and Esophagoscopy. S. A. Friedberg, Chicago.
133 Non-Suppurative Ethmoiditis. G. P. Marquis, Chicago.
134 *An Unusual Case of Combined Extra-Uterine and Intra-Uterine Pregnancy. C. D. Center, Quincy.
135 Uterine Myomata and Parturition. C. E. Paddock, Chicago.
136 Surgery of the Pleura. O. L. Pelton, Elgin.
137 *Phthisiophobia. F. Tice, Chicago.
138 *Action of Iodin on the Tissues. A. Werelius, Chicago.
139 *Development of the Theory of Hearing. G. E. Shambaugh, Chicago.
140 Diagnosis of Cancer of the Rectum. C. J. Drueck, Chicago.

134. **Extra-Uterine and Intra-Uterine Pregnancy.**—Center's case was one of combined extra-uterine and intra-uterine pregnancy at the same time, with rupture and removal of the extra-uterine pregnancy, and both tubes and both ovaries, the intra-uterine gestation proceeding undisturbed to full term and normal labor.

137. **Phthisiophobia.**—The resident staff of the Cook County Hospital has been traced by Tice, and the frequency of tuberculous infection determined as accurately as circumstances will permit. During the period of thirty-three years, from 1866 to 1909, 376 physicians have served as interns, and each member, with the exception of the first three, has served a period of eighteen months. Until within the last year and a half, no attempt was made to segregate the tuberculous patients, but they were cared for in the general wards, not especially constructed for this class of patients, and where no special precautions were enforced. Of the 376 members of the resident staff, three had tuberculosis before their service, four during their service, and thirteen have developed it since that time, making a total of twenty, of whom six have died. Accepting the validity of the preceding statements, Tice thinks it is evident that the danger of infection in tuberculosis has been overestimated and exaggerated. As a result, tuberculous

individuals and the public at large have been subjected to great inconvenience and hardship. The medical profession, he declares, should realize the evils of these misconceptions and endeavor to correct them so far as possible; physicians should no longer continue to repeat many of the current stereotyped statements on tuberculosis, but more nearly to approach the truth as indicated by knowledge of recent developments. The nursing profession should be instructed properly and trained in the care of the tuberculous. Since much of the fear of tuberculosis has resulted from the educational efforts of the various antituberculosis organizations, it becomes incumbent on them to continue their efforts and assist in diminishing this evil.

138. **Action of Iodin on Tissues.**—The main object of Werelius' research was to ascertain the action of iodin on the healing process of wounds. For this purpose, two wounds were inflicted on the back of dogs on each side of the spine, treating one with, and the other without, application of iodin. The wound treated with iodin always healed much more slowly than the wound not so treated. In the experiments tincture of iodin was used.

139. **The Theory of Hearing.**—Shambaugh believes that the membrana basilaris is physically incapable of performing the rôle of a vibrating mechanism, and, furthermore, that the membrana tectoria must be this mechanism. Just how the membrana tectoria responds to the impulse of sound waves is largely speculative since this is beyond possibility of actual demonstration. His conclusions regarding the manner in which the structure responds is arrived at by assuming that manner of response which best explains the various phenomena associated with sound perception both in the normal physiology of hearing and in the phenomena associated with diseases of the labyrinth.

Journal of Cutaneous Diseases, New York

March

141 *Infectious Eczematoid Dermatitis. Possible Influence of Anaphylaxis in Skin Reactions. J. A. Fordyce, New York.
142 A Case of Frambesia. C. J. White and E. E. Tyzzer, Boston.
143 Mycosis Fungoides in the Negro. E. R. Strobel, Baltimore, and H. H. Hazen, Washington, D. C.
144 Exposure to the Sun as an Etiologic Factor in Alopecia. G. F. Harding, Boston.

141. **Infectious Eczematoid Dermatitis.**—In observing a large number of cases of dermatitis, Fordyce has been struck by the frequency with which forms of skin infection, usually diagnosed as eczema, have been secondary to some antecedent lesion or disease of the skin, such as scabies, wounds or traumatisms which have become infected, abscesses, furuncles, intertrigos, sinuses left after operation on bones, etc. In other words, the percentage of eczemas which were not preceded by some antecedent pathologic condition seemed to be in the minority. At times, when the eczematous and pyogenic processes have coexisted, it has been difficult to determine which condition was the primary one. On the other hand, when eczema and furunculosis were coincident, it was learned, on making inquiry of the patient, that the furuncles had in many cases antedated the outbreak of eczema. In addition to cases resulting from a purulent discharge or skin infection, Fordyce has noted others in which one or more scaling patches of dermatitis present for an indefinite time suddenly assumed an acute inflammatory reaction and spread by continuity or independent foci to other parts of the body. He believes that those cases belong to the group described under the name of infectious eczematoid dermatitis, and that irritation of the skin produced by discharges from abscesses, sinuses, ulcers and other pus-secreting surfaces is the true basis of these phenomena. In certain of these cases, the outbreaks occur at a distance from the primary focus and are not to be explained on the ground of autoinoculation or direct conveyance of the irritant substance. These cases, Fordyce would claim to be due to anaphylaxis.

Medical Fortnightly, St. Louis

March 10

145 Relation of the Eye to the Nervous System. E. E. Clark, Danville, Ill.
146 Ileus Paralyticus Relieved by Operation. C. W. McElhaney, Greenville, Pa.
147 Pneumonia. G. L. Servoss, Fairview, Nev.

American Journal of Physiology, Boston

March

148 The Physiology of Regeneration. Regeneration of Isolated Segments and of Small Pieces of Worms. S. Morgulis, Boston.
149 *Influence of Cold Baths on the Glycogen Content of Man. G. Lusk, New York.
150 Nuclein Metabolism in the Dog. P. A. Levene and F. Medigreceanu, New York.
151 *Effects of Various Forms of Exercise on Systolic, Diastolic and Pulse Pressure and Pulse Rate. O. S. Lowsley, Baltimore.
152 Does Dextrose Arise from Cellulose in Digestion? G. Lusk, New York.

149. **Influence of Cold Baths on Glycogen Content of Man.**—In order to determine whether cold baths will not completely remove the glycogen content of a man, two individuals who had accustomed themselves during the summer to a swim of fifteen minutes' duration in the early morning in cold water, and who took daily cold douches as a matter of routine at other times, submitted themselves in the morning (without breakfast) to the action of two baths, each of from six to ten minutes' duration. The water contained floating ice blocks and had a temperature of 10 C., the baths being given at intervals of about two hours. The treatment was effective in exhausting the glycogen supply. Lusk concludes that immersion of normal men in cold baths at a temperature of 10 C. when the intestine is free from carbohydrates, induces shivering which causes a rapid utilization of body glycogen as determined by a fall in the respiratory quotient to the fasting level. In one very muscular individual this result could not be obtained. In one individual in whom the shivering had been severe, a quotient of 0.67 and anotner of 0.62 were found during subsequent periods of rest, which correspond to those observed during rest after a period of exhaustive exercise (glycogen formation from protein). The greatest increase in heat production which was brought about by the cold baths was 181 per cent. above the normal. The urine remained free from albumin and from sugar.

151. **Effects of Various Forms of Exercise.**—The conclusions to be drawn from Lowsley's experiments are as follows: All types of prolonged exercise which cause an increase in pulse rate cause also a rise in systolic and diastolic pressures. The systolic pressure shows the greater rise; hence there is an increase in pulse pressure, which may be interpreted to mean that the heart beats are augmented as well as accelerated. After all types of exercise studied, the systolic, diastolic and pulse pressures invariably fall below normal and remain in this subnormal condition for a considerable time. The more exhaustive the nature of the exercise, the longer will be the subnormal period which follows. Systolic pressure invariably falls more rapidly than diastolic, and hence the pulse pressure becomes weaker. Pulse rate, which always increases during exercise, decreases rapidly after its completion. Rapid exercises (vigorous, fatiguing and exhausting) are followed by a fall of pressure below normal which lasts longer than after moderate exercise, even if the former is continued only for a very short period and the latter for quite a long period of time. If Lusk's interpretation of the subnormal phase is correct, it would follow that the so-called field events, consisting of jumping, shot putting, discus and hammer throwing and baseball, gymnasium apparatus work, and exercises of a similar nature, are preferable to rapid exercises such as basketball, football and running races. This is particularly true in the case of the rapidly growing youth, whose heart is under the additional demand of keeping pace with an increase in the tissue mass of the body. There is less strain put on the circulatory system by walking a number of miles at a moderate rate than by sprinting 100 yards at top speed. Long-distance races and similar forms of exhaustive exercise give rise to a serious strain on the heart, as is indicated by the long period of subnormal blood-pressure.

Woman's Medical Journal, Cincinnati

March

153 A Review of the Treatment of Sterility. M. D. Rushmore, New York.
154 Cholera and Typhoid. M. S. Macy, New York.
155 Relation of Women in Industry to Child Welfare. I. T. Smart, New York.
156 Economics of Development. J. M. Taylor, New York.

XUM

Journal of the Medical Society of New Jersey, Orange

March

157 Podalgia and Flat-Feet. H. J. Bogardus, Jersey City.
158 Appendicitis and Its Moving Pathology. G. K. Dickinson, Jersey City.
159 Prevention of Peritonitis. E. W. Hedges, Plainfield.
160 Care of Fractures. W. H. Lawrence, Summit.
161 Intussusception. T. W. Harvey, Orange.
162 *A New Technic in the Use of Forceps. M. A. Swiney, Bayonne.
163 An Appeal for Inquiry Beyond the Isms of the Times. H. Chevanne, Salem.
164 Fermentation and Putrefaction. L. F. Bishop, New York.
165 A Case of Splenomyelogenous Leukemia. G. Knauer, Elizabeth.

162. **New Technic in Use of Forceps.**—The indications for the technic described by Swiney are: Vertex presentations, or convertible vertex presentations with no engagement, when there is no great disparity between head and inlet. The principal points in the method are the Walcher position, forceps application at the beginning of a pain and withholding the anesthetic until the head is properly forced into the brim. This plan should not be tried until the os is fully dilated and sufficient time should always be given for Nature to do her best. In using the Walcher position, the toes should not touch a chair or the floor during a pain. An assistant must hold the patient by the shoulders to keep her on the table. During the interval an assistant should hold up her legs, as it is more comfortable for the patient.

Chicago Medical Recorder

March

166 New Problems in Treatment of Cancer. C. Wagner, Chicago.
167 Active Immunization in Tuberculosis. H. J. Achard, Chicago.
168 Elements which Make Success or Failure in Surgical Work. C. W. Barrett, Chicago.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London

March 4

1 *Mediastinal Affections. P. Kidd.
2 Immunity Reaction in Diagnosis, Especially of Tuberculosis and Syphilis. W. d'E. Emery.
3 *Mechanical Treatment of Spinal Caries. H. J. Gauvain.
4 Education of the Deaf. M. Yearsley.
5 *A Case of Suprarenal Apoplexy. R. Waterhouse.
6 Cranial Asymmetry Due to Postural Causes. H. Armstrong.
7 A Case of Rodent Ulcer of the Thigh. H. E. Friend.
8 A Case of Retention of Urine. G. W. Bury.
9 Infantile Diarrhea. W. Tibbles.
10 Bone-Setting and Its General Principles. F. Romer.
11 Twin Scissors for Twin Sclerotomy. N. B. Harman.

1. **Mediastinal Affections.**—Nine cases are reported by Kidd: Case 1. Substernal thyroid tumor simulating a mediastinal new growth; operation, recovery. Case 2. Mediastinal cyst (? dermoid); operation; recovery. Case 3. Mediastinal abscess perforating the trachea and esophagus and causing subcutaneous emphysema and cellulitis; temporary relief following bleeding; death. At the necropsy the left pleura was found to contain 1½ pints of brownish turbid fluid, the lung being collapsed and covered with recent greenish lymph. Both lungs contained numerous miliary abscesses. In the esophagus opposite the bifurcation of the trachea there was a flat oval fibroma measuring 1x⅔ inch, and just to the left of the tumor a small smooth-edged opening led into an abscess cavity at the bifurcation of the trachea. There was also acute recent pericarditis. The disease appeared to have originated in the subtracheal lymphatic glands, whether as the result of tuberculosis or some other cause could not be determined. Case 4. Mediastinal growth masked by pericardial effusion; death. At necropsy the mediastinal glands in front of the trachea and bronchi were found to be infiltrated with a firm whitish-yellow growth forming a mass of about the size of a duck's egg, not occluding or narrowing either bronchus, trachea or esophagus. There was a small nodule of growth in the upper lobe of the left lung. Case 5. Mediastinal growth masked by pleural effusion; death. At necropsy a large pleural effusion was found on the right side and turbid fluid with flakes of lymph. The trachea and the root of each lung were embedded in a large whitish growth extending widely into the lower lobe of the right lung. The esophagus and large veins were not involved. Case 6. Tuberculosis of mediastinal glands followed by pleurisy with effusion; recovery for some years; death from tuberculous meningitis. Case 7. Tuberculosis of mediastinal glands compressing the right bronchus; recovery. Case 8. Tuberculosis of mediastinal glands involving the lung by direct infection through the bronchi. The case progressed slowly downward, the chief features being remittent pyrexia, loss of flesh and slight cough. Signs of consolidation gradually spread up toward the apex of the right lung, râles and rhonchi appeared over both lungs, and the patient died from tuberculous meningitis. At necropsy large caseous glands were found in the anterior mediastinum and beneath the fork of the trachea. The right bronchus was perforated by the caseous glands in two of its divisions—the branch to the middle ear and the branch to the lower lobe. The middle lobe of the right lung was converted into a large caseous mass. In the upper lobe there were a limited fibrosis and a small cavity. Both lungs were studded with miliary tubercles. There was tuberculous meningitis. Case 9. Tuberculous abscess of bronchial glands; bronchopneumonia simulating acute tuberculosis; death from septicemia.

To determine whether bronchial breathing, like bronchophony, is heard about the seventh cervical, and three or four dorsal upper vertebræ in a great number of healthy persons, especially in those that are thin, in women and children, Kidd examined fifty-one patients consecutively. The only patients excluded were such as had consolidation of the lung of any kind, pleural effusion, or any evidence of tuberculous or other glandular disease in any district of the body. Of these fifty-one patients, thirty-three showed bronchial breathing or pectoriloquy over the seventh cervical and upper dorsal spines, usually the first and second. In twenty-two cases both bronchial breathing and pectoriloquy were present; in eleven cases either bronchial breathing or pectoriloquy alone. In eighteen cases the results were uncertain or negative. Most of the patients who gave positive results were spare or thin, but not all, a notable exception being a man weighing over 210 pounds, the subject of a cerebral tumor. Among the positive cases nineteen were male and fourteen female; age: under 10 years, seven cases; 10 years and over, twenty-six cases. Kidd feels persuaded that we may expect to find bronchial breathing and pectoriloquy over the upper dorsal spines in many healthy people.

3. **Mechanical Treatment of Spinal Caries.**—Gauvain discusses mechanical treatment during recumbency only.

5. **Suprarenal Apoplexy.**—The history of Waterhouse's patient, a boy aged 8 months, was as follows: throughout the morning the child had been very drowsy and had "looked strange," but had not seemed to be in pain; he had taken nourishment readily, and the bowels had acted as usual. About 3 o'clock in the afternoon he vomited. Previously the child had always seemed perfectly healthy. He had been breast-fed until three weeks before admission, when a mixture of cow's milk and water was substituted. The infant was obviously very ill: complexion gray, eyes dull, breathing rapid, shallow and noiseless; temperature 100.4 F., pulse 140, and respirations 72. Râles could be heard all over the chest, especially at the bases behind. The abdomen was soft and not tender. There were no signs of meningitis, and nothing abnormal was to be seen in the mouth or fauces. Two hours after admission an extensive eruption of purple spots and blotches appeared over the whole trunk, upper arms and thighs. The temperature had fallen to 99.4 F. The child rapidly grew worse, the face became cyanosed, and death occurred four hours after admission. There were no convulsions throughout.

The post-mortem examination was made twenty-two hours later. The suprarenal capsules were striking objects even before their removal from the body; of little more than normal size for a child of this age, they were both of a deep purple color and evidently the seat of hemorrhage. The extravasation of blood had taken place into both the cortical and medullary portions, but no bleeding had occurred into the adjacent tissues. Microscopically, the structure of the medulla was seen

to be completely destroyed and replaced by effused blood. The arrangement of the columns of cells in the cortex could be made out, but the cells themselves had largely disappeared, their nuclei alone remaining, while everywhere were to be seen large numbers of red corpuscles. All the other organs appeared natural. Cultures taken from the adrenals, from the spleen and from the cerebrospinal fluid all proved sterile. No microorganisms could be detected in films made from the cerebrospinal fluid and from the interior of the suprarenal capsules.

Medical Press and Circular, London

March 1

12 Medicinal Treatment of Uterine Hemorrhage. R. Asch.
13 History of Mummification. G. E. Smith.
14 Indications for and Technic of Cesarean Section and Its Alternatives in Women with Contracted Pelves Who Have Been Long in Labor and Exposed to Septic Infection. A. J. Routh.
15 Therapeutic Use of Radium. W. H. B. Aikens and F. C. Harrison.

Australasian Medical Gazette, Sydney

January

16 *The "Presystolic Murmur." J. M. Gill.
17 Diagnosis of Intra-Uterine Pregnancy in the Earlier Months. J. K. Couch.
18 *Identification of Bacillus Typhosus (Eberth Gaffky) and Bacillus Dysenteriæ (Flexner). B. Bradley.
19 A Case of Undeveloped Genitalia with Pregnancy, Resulting in the Birth of Unequal Monochorial Twins. T. G. Wilson.
20 *A Plea for the Early Diagnosis and Treatment of Incipient Phthisis by Tuberculin. E. Ure.
21 Kyoomba Sanatorium for Treatment of Tuberculosis. H. Shaw.
22 Aspects of Tuberculosis in Man and Animals. J. B. Cleland.
23 Congenital Dislocation of the Hip, Treated by Lorenz's Method and Its Etiology. T. and P. Fiaschi.

16. **Presystolic Murmur.**—The presystolic murmur consists of a series of sounds following each other in rapid sequence, the murmur being sometimes short and at other times prolonged. When short, it resembles a reduplicated second sound at the apex; on the other hand, it may occupy the whole of a prolonged diastolic period, being frequently a half a second or even a full second in duration. Cardiograms taken by Gill show, he says, that the vibrations, which when palpable form the thrill, are really continuous during the whole cardiac cycle, and are always present, whether the presystolic murmur be audible or not. These vibrations are often best obtained from an area well over the right ventricle—that is, internal to the nipple line, a little above the level of the nipple. They vary in rate as a rule from about seven or eight a second to ten or twelve, and can be recorded in a variety of pathologic conditions apart from mitral stenosis, and are therefore not peculiar to it. Although these rapid movements are frequently encountered in cardiograms, yet in venous pulse records they are only occasionally present. In jugular tracings from cases showing a continuously irregular pulse, they are often well marked during long diastolic pauses and are now generally recognized as being due to fibrillary contractions of the auricle. They can often be obtained in cardiograms from these cases.

The presystolic murmur is not, Gill says, necessarily dependent on contraction of the auricles. It is occasionally associated with an irregular pulse. The right auricle is the seat of regularly occurring vibrations, yet there is no proper contraction as shown by the venous pulse; the left auricle, as shown by the presystolic murmur and the apex tracings, shows similar movements; the ventricular contraction is continuously irregular. Research by means of the string galvanometer, has shown clearly that in all cases of persistent irregularity similar vibrations are always present; these vibrations have therefore undoubtedly a muscular origin, and further arise in the right auricle. The string galvanometer shows usually in cases with presystolic murmur, a double-peaked wave; sometimes the wave has three peaks, at other times four. The explanation is that these waves are due to independent contractions of the sinus venosus tissue in the right auricle, and to a much less degree in the left auricle. In the course of development the two auricles absorb the sinus venosus. It is still uncertain what part of the auricles is derived from the sinus venosus; in the right auricle, probably that portion lying between the mouth of the superior vena cava above and the inferior vena cava and coronary sinus below, together with the adjacent part of the inter-auricular septum; in the left auricle the opening of the pulmonary veins, which have been observed occasionally to be capable of independent muscular contraction. We thus have a perfectly simple explanation of the presystolic and other diastolic apex murmurs. Vibrations occurring in the left auricle are rendered audible at the apex, by the fact that the blood in the auricle is under tension; the movement of the blood transmits these audible vibrations to the apex.

Gill points out that any explanation of the presystolic murmur must explain its proper relation to contraction of the left auricle. There is no doubt of the almost absolute association of contraction of the left auricle and the presystolic murmur, but there are a few exceptions. Such exceptions show that contraction of the auricle properly so called is not essential to the production of the presystolic murmur. The explanation seems to be that the sinus venosus movements involve only a small part of the muscular wall of the left auricle particularly; hence, a certain degree of tension being necessary for the production of sonorous vibrations, these movements are lost in the flaccid membrane, till the contraction of the auricle proper commences. The necessary degree of tension in the auricular wall may be present when the muscular tissue of the auricle is good, the obstruction being yet considerable; in that case, the auricular wall would be in a constant state of tension. Gill has seen three such cases in three years.

18. **Identification of Bacillus Typhosus and Bacillus Dysenteriæ.**—For the differentiation of these bacteria, Bradley uses plates of simple agar. Next day a number of colonies, at least ten, if possible from twenty-five to fifty, are picked off from the plate directly into lactose litmus peptone water. Next day those tubes showing an acid reaction are thrown out, leaving only the non-lactose-fermenting organisms. Some (at least six) and preferably all of these are then inoculated into mannitol litmus peptone water, saccharose litmus peptone water, sorbitol litmus peptone water, litmus milk, peptone water and gelatin, and films are made and stained by Gram's method. If next day any cultures, which by films are shown to be Gram-negative bacilli, give acid on mannitol and sorbitol and *nil* on saccharose and slight acidity on litmus milk, the agglutination reaction of one or more may be tested. If this be positive, in a dilution approaching the titre of the serum for control standard culture, the provisional diagnosis of *B. typhosus* may be made, but a week at least should be given before the diagnosis can be certain, after which the milk should remain very slightly acid and not clotted; the peptone water should become turbid and give no indol reaction, and the gelatin remain unliquefied.

For most practical purposes, Bradley believes that the following is a sufficiently good definition of typical *B. typhosus:* a Gram-negative bacillus, non-gelatin liquefier in seven days, non-lactose fermenter, non-saccharose fermenter, giving acid (without gas) on mannitol and sorbitol, very slight permanent acid without clot on litmus milk, and no indol reaction on peptone water in seven days. If these characteristics are all presented, Bradley has no hesitation in pronouncing the organism *B. typhosus.*

20. **Treatment of Incipient Phthisis by Tuberculin.**—Ure reports most encouraging results from the use of Koch's old tuberculin, commencing with very small doses and gradually increasing until extraordinary toleration to the toxin is established, active immunization being at the same time produced, which induces steady improvement in the patient's condition.

Dublin Journal of Medical Sciences

March

24 *A Case of Myasthenia Gravis. T. G. Moorhead.
25 *Epidemic Pneumonia. A. J. Powell.
26 Congenital Fistulas. J. H. P. Boyd Barrett.
27 Influenza. J. F. Clarke.

24. **Myasthenia Gravis.**—The essential symptoms of myasthenia gravis consist of paralysis of the voluntary muscles, more especially those supplied by the cranial nerves, varying in intensity and persistence, but usually more marked after muscular effort, and accompanied by a peculiar myasthenic reaction when the muscles are stimulated by the faradic current. Among the most common paralyses are those of the

ocular muscles, including the orbicularis palpebrarum and the levator of the upper eyelid, the lip muscles, those of the tongue and those of the neck; but in severe cases almost all of the muscles of the body may be involved. The paralysis almost invariably tends to increase when the affected muscles are used, so that at the beginning of a conversation the lip and tongue muscles may be used fairly well, but after a few minutes they become weakened, and soon may become so completely paralyzed as to be hardly capable of being made to contract at all. The appearance presented by the patient is strongly suggestive of the existence of some lesion of the nervous system. Moorhead's patient, on the eleventh day, was attacked with sudden dyspnea and cardiac failure, became quite unable to speak or swallow, and died in a couple of hours. The case was typical; however, there was marked atrophy of the gluteal muscles, the deltoids, and of the tongue, inasmuch as absence of atrophy was at one time regarded as an important diagnostic sign.

The post-mortem findings in this case were as follows: the thymus was persistent, and possessed two well-defined lobes extending down over the pericardium; microscopically it was normal, but contained no eosinophil cells. The thyroid was somewhat enlarged, and microscopically was more cellular than normal. The kidney was slightly congested and showed parenchymatous changes; both ovaries were enlarged and cystic. The other viscera, including the red marrow and pituitary body, were normal microscopically and macroscopically. The spinal cord, the medulla, the pons, the central nuclei and the cortex in the Rolandic region of the brain were normal. Macroscopically, the brain and spinal cord were normal. As regards the muscles, sections were made from the levator palpebræ superioris, the masseter and the pectoralis major, and in all Moorhead examined over 400 sections. The masseter and pectoralis major appeared to be normal, with the exception of one doubtful lymphorrhage in the pectoralis. The collection of cells, however, in this particular instance was found not between the muscle fibers but in the interstitial connective tissue. In the levator palpebræ some atrophy of muscle fibers was noted, marked proliferation of sarcolemmal nuclei was present, and in many of the sections scattered uninuclear cells with rounded nuclei were found between the muscle fibers. Nothing at all approaching in appearance, however, to the lymphorrhage, as figured by Buzzard, was found, and after a most careful search in three of the muscles of a very typical case, Moorhead feels inclined to throw doubt on the universal presence of lymphorrhages in the muscles of myasthenic cases.

25. **Epidemic Pneumonia.**—This epidemic recorded by Powell occurred in April and May, 1909, in the village of Penn, near Wolverhampton, Staffordshire, England. The patients came from the smaller cottagers in the village with the exception of the first, who came from about one mile outside the village. The number of recorded cases was nine. The number of deaths was seven. The cases can be divided into two series, in each of which a clear history of direct infection from case to case was manifest. In the first group there were four cases and in the second three. The remaining two occurred sporadically, but were both attended by the district nurse who had attended some of the other cases. Beyond these significant facts no clearer history of infection could be obtained in the last two cases. The type of disease was characterized by great cardiac depression, cyanosis and dyspnea at the outset with but few local physical signs. The number of cases attended by other practitioners in the immediate neighborhood during this time was considerable, but accurate information cannot be obtained either as to their numbers or the type of the disease or the nature of the infection. Only two of Powell's patients recovered, both children, one aged 14, the other 6. All the adults died, making a mortality of 77.7 per cent.

Glasgow Medical Journal

March

28 What Are We Doing to Combat Infant Mortality? L. Findlay.
29 Recent Advances in Hematology. W. K. Hunter.
30 *An Unusual Complication of Measles. A. J. Couper.

30. **Unusual Complication of Measles.**—In Couper's case a fairly well-marked and typical measles eruption was present, and involved the whole skin area. Coryza and conjunctival suffusion were mild. The patient was a well nourished child, but flabby. The heart sounds were soft. Pulse was of low tension. Mucous râles were present, and were heard over both lungs, anteriorly and posteriorly. These were most numerous and were of finer quality at the right base behind. No dulness was detected, and the respiratory murmur was nowhere impaired. The case ran the usual course. The rash became brighter and the temperature rose on the fifth day of illness; the former began to fade on the ninth day of illness. With the fading of the rash, the temperature rose to 102 F., while pulse and respirations numbered 140 and 60 respectively. From this somewhat high register there was a drop of temperature, which occupied three days, the temperature being normal on the twelfth day. During this period there was no alteration in the chest condition. On the sixteenth day the temperature again rose to 102 F. This was accompanied by an increase in pulse-rate to 136, and in respiration-rate to 44. Next day temperature was 97.6 F. The dorsum of the right hand was found to be swollen and edematous. Circulation in the part was good, and there was no discoloration. No pain or tenderness was present in any part of the limb. On the following day the swelling was much increased, involving the palm and extending up the wrist. The terminal phalanx of each digit had become cyanosed, and the circulation in the fingers was very sluggish. By the nineteenth day the swelling had become pronounced. The whole of the right arm, together with the inner wall of the axilla, was affected, and these parts were distinctly edematous and very tense. The limb was cold to the touch and mottled (of a purplish color), while the extremities of the digits were black. With this increase in swelling, temperature rose to 103 F.; pulse, 138; respirations, 40. Crepitant râles were heard at both bases posteriorly, but no dulness was detected. On the twentieth day the swelling was still further increased, the limb and the inner wall of the axilla had assumed a much deeper and more uniform tint, and numerous ecchymoses and bullæ, containing a sero-sanguinolent fluid, were observed. The child died on the twenty-first day of his illness. Two days after death a post-mortem examination was made. In the subclavian vein, about half an inch from its proximal extremity, was a firm clot, which extended for an inch backward, and was adherent to the wall of the vein. Attempts to grow cultures from the clot failed.

Journal of Laryngology, Rhinology and Otology, London

March

31 Reports for 1909 from the Ear and Throat Department of the Royal Infirmary, Edinburgh. W. T. Gardiner.
32 The Wire Saw in the Radical Operation on the Middle Ear. V. S. Stein.
33 Injuries of the Head and Nasal Diseases. C. Ziem.

Clinical Journal, London

March 1

34 Nervous Exhaustion. W. H. B. Stoddart.
35 Historical Notes of Plague. F. M. Sandwith.
36 Significance of Sphygmomanometric Readings. F. H. Humphris.

Bulletin de l'Académie de Médecine, Paris

February 14, LXXV, No. 7, pp. 177-216

37 *Malta Fever. (A propos de la fièvre ondulante.) R. Blanchard.
38 Abortive Treatment of Syphilis. E. Gaucher.
39 *Institutes for Infant Welfare. (Des Instituts de puériculture après la naissance.) A. Pinard.

37. See Paris Letter in THE JOURNAL, March 11, p. 755.

39. **Infant Welfare.**—Pinard describes the workings of an institution at Paris for infant and child welfare and urges the organization of similar institutes of puericulture in other cities. The institute serves as an object lesson in the care of young children and the means to avoid epidemics.

Bulletins de la Société de Pédiatrie, Paris

January, XIII, No. 1, pp. 1-64

40 *Insufficiently Fed Infants. (L'hypoalimentation chez le nourrisson.) Nageotte-Wilbouchewitch.
41 Sclerosis and Leukoplasia of the Tongue from Inherited Syphilis in Two Brothers. P. Merklen.
42 *Methylene Blue and Fuchsin Test of Age of Milk. (Appréciation rapide du degré d'altération d'un lait.) H. Bertin-Sans and E. Gaujoux.
43 *Criteria of Normal Stools. (Physiologie digestive et coprologie.) H. Triboulet.

44 Varicella with Adenopathies, Torticollis and Initial Pruritus. (Trois particularités au cours de la varicelle.) P. Merklen.
45 Verrucous Tuberculosis of Leg After Lesion of Metatarsus. A. Trèves and G. Schriber.

40. **Insufficiently Fed Nursing Infants.**—Nageotte confirms Merklen's statements (mentioned in these columns March 4, page 702), that mothers often take too literally the directions of their medical attendants in respect to overfeeding their children and go to the other extreme. This is particularly the case, she has found, among the young mothers in the student quarter of Paris, progressive women, solicitous for the welfare of their infants, whom yet they are scientifically starving. These women are not so good nurses, to begin with, as the less nervous women of the uneducated classes. She remarks that this hypoalimentation is an artificial vice, of exclusively medical origin, and the babies are all against it, so that it can soon be suppressed if its presence is once recognized. The trouble is that when the infant vomits repeatedly, this being a characteristic symptom of the lack of sufficient nourishment, the tendency is to reduce the ration still lower. Another characteristic sign of insufficient nourishment is that the infants try to put both hands in the mouth and suck the fingers hungrily. All this, she remarks, teaches anew that medicine cannot be reduced to mathematical formulas; rules valuable for full-breasted, robust women cannot apply to frail nervous women more or less exhausted by privation and study.

[G. Variot reiterates that the signs of overfeeding and of insufficient feeding frequently have features in common, especially repeated vomiting and distended abdomen. It would be a great mistake, he emphasizes in a recent communication on the subject published in the *Bulletins de la Soc. Méd. des Hôp.*, to regard big-bellied infants as necessarily always overfed; frequently the abdominal ectasia, as he prefers to call it, is the result of swallowing of air as the child sucks in its vain effort to obtain enough nourishment. There is generally a marked disproportion between the size and the weight of such underfed children, and the Roentgen rays may show the distention of stomach and intestines with air. The little body floats lightly on the surface of water if the head is sustained with one finger. When the children are given sufficient nourishment the abdomen promptly subsides to the normal aspect.]

42. **Test for Age of Milk.**—A colored plate shows a color reaction obtained with milk too old to be sanitary for infants. The technic for the test is rapid and simple. Two stains are required: a 1 to 4,000 solution made by dissolving 0.25 gm. of methylene blue in 1 liter of distilled water; and a second solution made by dissolving 0.25 gm. of fuchsin rubein in 50 c.c. of alcohol and then diluting to 1 liter. To about 20 c.c. of the milk to be examined are added 3 drops of the fuchsin solution and 5 drops of the blue solution. The test-tube is plugged with cotton and placed in water in the water-bath and heated to about 38 or 40 C. The color gradually changes from the first ash-grey tint to a lavender and then to pink, from decoloration of the blue. The change of tint occurs the more rapidly the older the milk; if the change occurs in fifteen minutes the milk is too old to use; if the color reaction occurs in three quarters or an hour, the milk is too old for infants and the sick, and the milk should be regarded as suspicious when the change of tint is observed in less than an hour and a half. The test is based on the presence of reductase in the milk, the reductase being the consequence of the development of microorganisms. Negative findings may not be conclusive, the authors state, but positive findings may be relied on.

43. **Criteria of Normal Stools.**—Triboulet has long been insisting that simple inspection of infants' stools is inadequate for proper estimation of conditions, while comparison of the findings with the acetic-acid test gives an instructive oversight of the digestive functioning. With a normal stool, the contents of the test-tube form a homogeneous mixture, clearer at the top and becoming turbid toward the bottom, the whole being of a peach-flower pink. When digestion is defective, a coarser grained sediment settles to the bottom while fat and mucus float on top. The litmus reaction should indicate acid stools for breast-fed infants and alkaline stools for bottle babies. The presence of bile salts is indicated by an immediate red tint in the Pettenkofer test, while the bile pigments under four months show in the green meconium; after four months the stercobilin shows pink; the control test is the fluorescence with zinc acetate. Salts, lactose, casein and fats are not discoverable in normal stools on milk alone, and starch is all digested. Whatever the diet, there should be no red or pink reaction with phenolphthalein as these indicate the presence of blood or of products of fermentation. The acetic sublimate test is made by treating the well-diluted stool, for macroscopic examination, with 8 or 10 drops of the ordinary laboratory solution of 100 c.c. distilled water; 3.5 gm. of bichlorid of mercury, and 1 gm. of acetic acid. About 10 drops of this mixture are added to the diluted stool in a test-tube and the color findings are examined after one hour or up to twenty-four hours at most. Triboulet uses a printed chart to record the findings with the acetic test, in addition to the age, clinical diagnosis, diet, aspect and frequency of the stools, their consistence, odor, color, reaction and the findings with the Pettenkofer, biuret, Lugol and phenolphthalein tests—all the latter tests are negative with normal stools.

Obstétrique, Paris

February, N. S. IV, No. 2, pp. 121-248

46 Structure and Evolution of the Uterine Mucosa. E. Retterer and A. Lelièvre.
47 *Review of the Use of Scopolamin in Obstetrics. P. Lequeux.

47. **Review of Scopolamin in Obstetrics.**—The scopolamin-morphin method of anesthesia for painless labor was originated by Steinbüchel, Lequeux remarks, but Krönig was its apostle and Gauss has been its executive, while Hocheisen denounces it as dangerous for both mother and child, and several other prominent obstetricians share this view. All acknowledge that the method has varying effects, that cases of inexplicable idiosyncrasy are sometimes encountered, and that the same technic is very liable to give very different results in different patients. The work of thirty-one writers on the subject are reviewed. The total number of cases in which it has been applied is 4,619, and this material is tabulated for comparison, showing the percentage of good and bad results for mother and child. Lequeux' final conclusion is that we may feel encouraged to continue cautious clinical research on the subject.

Presse Médicale, Paris

February 18, XIX, No. 14, pp. 121-128

48 *Slight Dilatation of the Bronchi in Children. V. Hutinel.

February 22, No. 15, pp. 129-136

49 Pneumonic Plague. E. Rist.
50 Charts Representing Arterial Tension. A. Martinet.

February 25, No. 16, pp. 137-152

51 *Meningitis and Tabes Dorsalis. J. Tinel.
52 *Treatment of Dread of Emotional Blushing. (La base organique de l'éreuthophobie et son traitement.) P. Hartenberg.
53 Immobilization in Tuberculous Osteo-Arthritis. G. Monod.

48. **Slight Dilatation of the Bronchi in Children.**—In children, mild forms of bronchiectasia may exist which seldom cause symptoms; weeks and months may pass before any functional disturbances can be observed. The bronchiectasia thus escapes detection until some casual infection of the air passages above extends to the dilated bronchial tubes. General symptoms then rapidly develop, sometimes serious, with peribronchial and pulmonary disturbances and signs as of cavity formations. These local phenomena may prove misleading, but correctly interpreted they clear up the diagnosis. The fever is often high, with a wide range, the pulse rapid, and there may be a distressing cough, especially when the temperature runs up. The sputum is purulent but not fetid as in adults, and the dyspnea is generally moderate. The chest may be retracted on one side and the wall less movable, with impaired resonance or actual dulness over the lesion. In the intervals between the exacerbations of the catarrh the râles may subside, but the cough arouses them again. The younger the child the greater the chance of recovery; but every catarrhal affection retards this and increases the tendency to sclerosis of the lungs. Such children should be guarded carefully and particularly shielded from contact with tuberculosis. Differentiation from established tuberculosis is often difficult, but the overrapid development of signs of a

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cavity, their location at the base of the lung and absence of tubercle bacilli in the sputum, together with the antecedents should suggest the bronchiectasia.

51. **Meningitis and Tabes.**—Tinel shows in thirteen illustrations the changes in the nerve fibers in the course of any meningitis. The radicular meningitis is seen to be practically the same process in the various infections, tuberculous, cerebrospinal, syphilitic, etc. Ordinary meningitis either speedily heals or progresses to a fatal termination; but in syphilitic meningitis the long chronic course leads to such an advanced stage of the resulting lesions that tabes is the inevitable result. The mechanism of its development is exactly the same, he declares, as in meningitis of any other origin, and it is possible that any toxic-infectious process in the meninges, especially if attenuated and chronic, is liable to reproduce, in whole or in part, the anatomic and clinical picture of tabes, if it has time enough.

52. **Morbid Dread of Blushing.**—Hartenberg has always found an organic basis for excessive blushing, some physiologic peculiarity creating a predisposition to the emotional reflex. In six cases described in detail the following signs were found: the heart was exceptionally active, the beat powerful, but its rhythm was not accelerated; the carotid arteries were engorged and the head sweated easily; drops of moisture appeared on the brow and cheeks as the individual was speaking. Only one of the patients was a woman, the others were men between the ages of 18 and 32. The cardiac erethism, dilatation and hypotension of the arteries suggest certain symptoms of exophthalmic goiter, and one of the patients had other symptoms of an incomplete form of this disease. Hartenberg conquered the habit and morbid dread of blushing by the galvanic current, which he has found useful in exophthalmic goiter. The positive electrode was applied to fit around the front of the neck, the negative on the back, abdomen or elsewhere; a current of 50 milliamperes was applied for thirty minutes every day at first, then every second day. This electric treatment was supplemented by 2 or 3 gm. of bromid daily, with some restriction of salt. Twenty or thirty electric sittings were generally necessary. Psychotherapy does not remove the cause.

Semaine Médicale, Paris

March 1, XXXI, No. 9, pp. 97-108

54 *Dorsal Percussion of the Heart and Its Application in Interpretation of Grocco's Paravertebral Triangle of Dulness. J. Teissier.

54. **Grocco's Paravertebral Triangle.**—Teissier gives a detailed analysis of the triangular area of dulness close to the spine to which Grocco has called attention as a sign of pleural effusion, and discusses the mechanism responsible for the phenomenon. His conclusions differ from those generally accepted as he ascribes it mostly to dilatation of the right auricle. The resonance of the region involved becomes less when the spine is in contact with a fluid as in pleurisy or with a solid object as in case of encroaching dilatation of the heart or displacement of the mediastinum. Dilatation of the right heart is the most frequent cause, he asserts, and is the main factor in the majority of cases. The sign shows that something is wrong in the cardiopulmonary circulation or that there is inflammation in the subjacent pleura or both. In a case reported in detail, the triangular area of dulness corresponded to the dilated right auricle. The top of the triangle was not quite so high as the surface of the effusion, and it persisted after its subsidence to some extent. Teissier thinks that not enough attention is paid to dorsal percussion of the heart and analysis of the findings.

Archiv für Gynaekologie, Berlin

XCII, No. 3, pp. 607-808. Last indexed March 18, p. 455

55 Behavior of Intestinal Epithelium of New-Born Infants. (Verhalten des Darmepithels bei verschiedenen functionellen Zuständen. Beitrag zur Physiologie des Neugeborenen.) M. Stickel.

56 Fatal Eclampsia-Like Syndrome in Pregnant Woman at Term, with Primary Melanosarcomas in the Ovaries and Multiple Carcinomas in the Liver and Metastasis in the Placenta. N. Markus.

57 Cyclopean Monster. (Holocardius paracephalus cyclops.) I. Horwitz.

58 Research on the Blood During Pregnancy. (Gehalt des Blutplasmas an Gesammteiweiss, Fibrinogen und Reststickstoff bei Schwangeren.) E. Landsberg.

59 Ovarian Alveolar Sarcoma. A. Wolff.

60 Diagnosis and Prognosis of Puerperal Infection from Bacteriologic Findings in Blood and Lochia. H. Reibmayr.

61 Experimental Research on Ascending Genital Tuberculosis. P. Jung and E. Engelhorn.

62 Endometritis. O. Büttner.

Berliner klinische Wochenschrift

February 20, XLVIII, No. 8, pp. 325-368

63 *Gastric Ulcer and Pulmonary Tuberculosis. (Magengeschwür und Lungentuberkulose.) B. Stiller.

64 *Prostatectomy at Two Sittings. (Erfahrungen mit der zweizeitigen Prostatektomie in Lokalanästhesie.) P. Kayser.

65 Unfavorable Experiences with Sodium Nucleinate in Progressive Paralysis. O. L. Klieneberger.

66 Action of Radium Rays on Inoperable Cancer of the Uterus. E. Arendt.

67 Experimental Production of Gall-Stones. (Experimentelle Gallensteinbildung.) D. Klinkert.

68 Action of Serum of Cachectic Patients on Corrosive Sublimate Hemolysis. Kentzler.

69 Mydriatic Action of Organ Extracts. A. Bittorf.

70 Relations of Helminths to Tumor Formation. (Beziehungen der Acari zur Geschwulstätiologie.) E. Saul.

71 What Paris Does for Children with Bone and Joint Tuberculosis. (Die Fürsorge der Stadt Paris für Kinder mit Knochen- und Gelenktuberkulose.) G. Joachimsthal.

63. **Gastric Ulcer and Pulmonary Tuberculosis.**—Stiller reviews the various theories in vogue as to the origin of gastric ulcer and its frequent coincidence with pulmonary tuberculosis, and then states his conviction that both can be traced to the congenital condition to which he long ago called attention as asthenia universalis. This is responsible, he says, for the conditions which predispose to gastric ulcer on the one hand and to pulmonary infection on the other. The form of body peculiar to phthisical subjects, the flat chest, etc., is, he reiterates, merely the expression of the asthenia universalis, and the dyspepsia of the tuberculous is merely the nervous dyspepsia which forms part of the appanage of the universal asthenia. This throws light, Stiller thinks, on Weinberg's statement that neurasthenia in many cases is a sign of latent tuberculosis; he had noticed that many of his patients who had had neurasthenia later became victims of tuberculosis, while the children of tuberculous parents seemed peculiarly prone to neurasthenia. The identity of the phthisical and asthenic constitutions explains these facts at once. If he had looked about him, Stiller remarks, he would have seen that there are numerous other equivalents of neurasthenia besides tuberculosis: dyspepsia, ptosis of various or all the viscera, atony of the stomach, the splashing sound, hyperacidity, etc.—all symptoms of the asthenic habitus. Zielinsky found a surprisingly large number of congenital anomalies in the external or internal organs in nearly all of 900 tuberculous cadavers. The asthenia universalis does not necessarily entail tuberculosis; many healthy individuals are encountered with the narrow shoulders, the floating tenth rib, the drooping, exceptionally oblique ribs and the frail skeleton. This demonstrates that this form of body is not the result of existing tuberculosis as some have maintained. Stiller adds in conclusion that the hygienic-dietetic measures employed in treatment of tuberculosis are in reality directed mostly against the underlying asthenia.

64. **Prostatectomy in Two Sittings.**—Kayser does not advocate this as a general rule, but he is convinced that it is possible to save by two operations, under local anesthesia, a number of patients with prostatic enlargement whom otherwise we would be unable to relieve as it would be out of the question to inflict a single long operation on them, to say nothing of the general anesthesia which alone might so easily snuff out the spark of life. Most patients with prostatic enlargement are at an age when any operation is risky, especially under general or spinal anesthesia. If the bladder can be restored approximately to normal conditions by the preliminary operation, the patient will be much better able to stand the stress of the operation on the prostate, while the operation in two sittings materially reduces the danger of infection of the wound. Still another advantage of the two-sitting technic is that the long repose which it imposes on the bladder goes a long way toward ensuring better muscular functioning of that viscus later. He reports the details of four cases in which he operated on these principles, with unusually good outcome. None of these patients could have survived the ordinary prostatectomy.

Deutsche medizinische Wochenschrift, Berlin

February 23, XXXVII, No. 8, pp. 337-384

72 Rarity of Bovine Tubercle Bacilli in Human Sputum. (Typus der Tuberkelbazillen im Auswurf der Phthisiker.) B. Möllers.
73 *Tuberculosis Infection in Children. F. W. Rothe.
74 *Hyperemia in Pulmonary Tuberculosis. E. Jacoby.
75 Muscular Rigidity of Upper Chest Not Necessarily a Sign of Tuberculosis. (Vorkommen und Ursache der "Muskelrigidität" im Bereiche des oberen Brustkorbes.) F. Bredow.
76 Bronchial Asthma. Pescatore.
77 Precipitin Diagnosis of Anthrax. (Biologische Milzbranddiagnose mittels der Präzipitinmethode.) A. Ascoli.
78 Rapid Bacteriologic Diagnosis of Cholera. G. Pollaci.
79 Salvarsan in Syphilis. N. Z. Joannides.
80 *The Plague. Trautmann and W. Vierhuff.

73. **Tuberculosis in Children.**—The research reported supplements Gaffky's previously reported research on 300 child cadavers. The present article reports examination of an additional hundred. By inoculation of guinea-pigs with material from the bronchial and mesenteric glands tuberculosis was revealed in 19.5 per cent., that is, in 78 of the total 400 cadavers. In forty-two cases both bronchial and mesenteric glands were affected, in fourteen the mesenteric alone and in twenty-two the bronchial alone. In 98.68 per cent. of the tuberculous cases the tubercle bacilli were apparently exclusively of the human type; an unmistakable bovine type was found only in one cadaver. These findings confirm, Rothe remarks, the preponderant importance of inhalation of the germs for the development of tuberculosis in children.

74. **Local Hyperemia in Pulmonary Tuberculosis.**—THE JOURNAL mentioned Jacoby's announcement in 1897 of the advantages of inducing hyperemia in the lungs by lowering the upper part of the trunk. This "autotransfusion," as he called it, flushes the apices and does away with the mechanical conditions favoring the progress of the tuberculous lesion. He uses a special reclining chair in which the entire trunk lies horizontally, the head can be slightly raised, while the legs lie higher than the shoulders. By this arrangement, the pelvis is on a line with the chest, not lower than the chest according to the usual method of reclining. The pelvis can be raised a little higher than the chest by an interposed cushion which supplements the hyperemia induced by the autotransfusion with compression of the base of the lungs by the pressure of the intestines sliding down against the diaphragm. The respiration is more of the costal type, and the lungs are much better ventilated when the trunk is lying flat than when the patient is half sitting up, possibly with the shoulders stooping forward; this actually increases the tendency to anemia of the apices. He raises the feet higher by an inch each three days, until the feet are 18 inches above the level of the head. The patients find that they can breathe more deeply and more easily and that expectoration is promoted. Usually the occasional sharp pains in the chest disappeared during this position treatment. The horizontal attitude is not so agreeable for the patients as sitting up but they soon become accustomed to it and like it, as they come to appreciate the benefit therefrom. The method has been applied in various sanatoria in Germany and the general impression seems to be favorable. Muttray does not hesitate to apply it even when there is a history of hemoptysis in the past, but Jacoby does not go so far as this.

80. **The Plague in Manchuria and at Odessa.**—Trautmann comments on the fact that plague differs essentially from all other serious epidemic diseases in that it is primarily an animal disease, while it is much more infectious than any other animal infection. It is fortunate, he says, that healthy plague germ-carriers are unknown. It is possible, however, that persons who recover from the plague may sow the disease germs for a time afterward. Another advantage in favor of plague is that there is no record of its being water-borne. The germ is very sensitive and does not form spores but, with sufficient moisture and appropriate media, it may live a long time; plague infection has been traced to garments a year after their contact with the sick. He states that in Germany the black house rat is practically exterminated and with it the dangerous flea, Cheopis. The migrating rat (*Mus decumanus*) generally has another kind of flea, the *Ceratophyllus fasciatus*. Trautmann queries whether there may not be a primary intestinal form of the plague; in a case at Hamburg plague bacteria were found in the stool for two days. The man recovered. It is important, Trautmann adds, to have trained clinicians, bacteriologists and sanitary officials to handle the plague properly; it may be possible also that meteorologic and geologic factors are involved. He does not think that the statements of the English plague commission in regard to the intermediation of the flea are based on sufficient experience to establish a law; it must be remembered that the conditions were incomparably favorable for positive findings. There is still room for suspicion that some other factors may be involved in transmission of the plague. This is suggested by the experiences at Hamburg: None of the force engaged in exterminating the rats on the vessels from plague-infected ports has ever contracted the disease although many of the Cheopis fleas survived the gases that killed the rats. The men handling them never became infected. The flea theory also seems to be disproved by the "plague houses" in which the plague returns year after year although the inhabitants had fled and the buildings stood vacant for many months. He thinks that the rats surviving the plague would have left the empty house, taking their fleas with them. He has also been impressed by the anatomic differences between the plague rats in India and those arriving at Hamburg.

Vierhuff reviews the reports made by Zabolotny, who has just returned from Manchuria, and Skschiwan of Odessa at the recent public health congress at St. Petersburg. There were 141 cases of plague at Odessa last year; and the cases all occurred in the same blocks and some in the same houses where the last epidemic of plague had occurred in 1902. The bubonic form predominated; generally the glands in the groin were involved, only rarely the axillary glands; only two cases of the pneumonic form were encountered. A local connection with the plague in rats was beyond question, and about 50,000 rats were killed and 60 per cent. examined. The disease is still prevalent in rats there so that the epidemic cannot be regarded as over although no cases have been reported recently. The antiplague measures will have to be kept up for a year at least.

Mitteilungen aus den Grenzgebieten der Med. und Chir., Jena

XXII, No. 4, pp. 511-674. Last indexed February 18, p. 547

81 Experimental Study of Electric Thermopenetration. (Experimentelle Untersuchungen über den spezifischen Leitungswiderstand und über die spezifische Wärme der Gewebe des menschlichen Körpers als Grundlage für die Beurteilung des Weges von wärmeerregenden Hochfrequenzströmen.) F. Wildermuth.
82 *Cooling of the Inhaled Air in Ether Anesthesia. ("Ueber Abkühlung der Inspirationsluft bei der Aethernarkose, ihre Bedeutung und Verhütung.") F. Joss.
83 Metabolism of Iron in Myeloid Leukemia Before and After Roentgen-Ray Exposures. R. Bayer.
84 *Clinical Significance of Leukocytosis and Neutrophile Blood Picture in Appendicitis. H. Kohl.
85 *Tardy Fatal Chloroform Intoxication. (Klinischer und experimenteller Beitrag zur Kenntnis des Chloroformspättodes.) A. L. M. Muskens.
86 Congenital and Familial Malformations of the Hands. E. Ebstein.
87 *Infection of Urinary Passages with Colon Bacillus. (Aetiologisches zur Coliinfektion der Harnwege.) C. Franke.
88 Origin of Kidney Calculi. (Kritischer und experimenteller Beitrag zur Frage der Entstehung der Nierensteine.) H. Rosenbach.
89 *Paralysis of Cerebral Nerves in Exophthalmic Goiter. (Ueber Gehirnnervenlähmungen bei der Basedowschen Krankheit.) M. Kappis.

82. **The Local Refrigerating Effect of Ether.**—Postoperative pneumonia has been much reduced in frequency since more care has been taken to prevent chilling the patient's body, but not enough attention has been paid hitherto to the chilling resulting from the local refrigerating effect of the ether inhaled. Joss found that the ether cools the air inhaled through the mask so that it averages 33 degrees F. below the temperature of the room, and the difference may even be 44 degrees during certain phases of the anesthesia. The cooler air chills the air passages, undoubtedly lowering their resisting powers and checking the movements of the cilia of the ciliated epithelium lining them. The ciliary movement is affected by variations in temperature and is entirely arrested at the freezing point. Infectious material is thus liable to find its way more readily into the finer air passages as salivation becomes increased under the influence of the anesthetic. The problem

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now is to find some way to counteract the refrigerating action of the ether and warm the air as it is inhaled. Joss has tried to devise an appliance for the purpose but the one he has been experimenting with has not proved satisfactory and he is now attacking the problem from another standpoint.

84. **The Blood-Picture in Appendicitis.**—Kohl's report of his research is preceded by some remarks by Sonnenburg on the importance of examination of the blood as a routine measure in appendicitis. By this means it is possible to detect cases in which delay before operating is dangerous. Without it, this discriminating estimation of cases is a matter solely of the physician's temperament and experience. Any physician who can use a microscope, he says, can readily make a blood-count. It does not require any more time than to take the temperature, while determination of the neutrophile blood-picture requires barely half an hour. Years of experience with these measures at his clinic (in the Moabit hospital at Berlin) have revealed certain laws regulating the blood-picture, and the Arneth formula has been of great assistance. There are still many interesting questions awaiting solution, especially leukocytosis with incorporation of toxins or bacteria. Of all the protecting devices of the body against infection, the leukocytosis seems to be the most important manifestation for general practice, especially as it fits in with the temperature and pulse curves. He pleads for further cooperation in this line from surgeons. Kohl gives the details of a number of typical cases of various forms of appendicitis of varying severity as the blood-picture was studied at different periods of the disease and the findings compared with the anatomic conditions. His general conclusions are that there can be no doubt that the leukocyte count is equally important with the temperature and the pulse curve. If it seems to contradict the other clinical symptoms, the neutrophile mononuclears should be estimated by the Arneth classification. [This was described in THE JOURNAL, Feb. 13 and Aug. 20, 1904, pages 494 and 577.] The Arneth blood-picture seems to be an expression of the virulence of the infection while the leukocytosis is the expression of the peritoneal irritation on one side and of the reacting capacity of the individual on the other. The only cases of appendicitis in which an operation is not indicated are those with a mild clinical picture, especially slight local tenderness, and the Arneth blood-picture and the leukocytosis are normal or only slightly above normal. Even with a mild clinical picture if there is considerable leukocytosis the operation should not be deferred. A low leukocytosis and normal Arneth blood-picture should not deter from the operation if the clinical phenomena are pronounced, especially if there is much local tenderness. In such cases the inflammation is generally behind the cecum or it is extraperitoneal and restricted to the region of the appendix.

85. **Tardy Chloroform Intoxication.**—Muskens gives a historical review of this subject and tabulates the details of twenty-six cases from the literature and then reports his experimental research on the effect of chloroform on the liver, heart and kidneys. De Haan called attention in 1907 to the necessity for discriminating between the chloroform intoxication of these three organs, each having its own syndrome and its pathologic anatomy, although fatty degeneration is the essential pathologic change. Muskens also reports the necropsy findings in a youth of 15 who died sixty-four hours after removal of tuberculous glands in the neck under chloroform. The glands on the other side of the neck had been removed also under chloroform, two and a half months before. Except for the occasionally suppurating glands, the patient was in good health, free from fever and sweats, and nothing was found at necropsy to explain the fatality except the fatty degeneration of the liver, the pale and loose consistency of the heart muscle and the pronounced degeneration of the kidney parenchyma—these findings being a perfect reproduction of those published in the reports of the twenty-six cases on record of tardy chloroform fatalities. Muskens is convinced that the tardy effects of chloroform intoxication are more serious than has been hitherto recognized by the profession and the laity. Two fatalities from this cause have been observed during the last two years in the course of the 1,400 chloroform operations at the Rotterdam city hospital, and the chloroform intoxication was a probable accessory factor in the fatal outcome of others. Theoretically, it seems plausible to try to ward off trouble by restricting the intake of fat before attempting to operate, refraining from administering any oily purgatives beforehand and striving to promote elimination of fat by stimulating the liver functioning with medicines to increase the flow of bile.

87. **Colon Bacillus Infection of the Urinary Passages.**—Franke states as the result of experiments on rabbits that the ascending colon and the cecum are connected by a train of lymphatics with the right kidney. He was not able to find such connection with the left kidney. He says further that bacteria are able to pass directly from the intestine into the lymph vessels, if there is even a slight lesion of the intestinal wall. His research also demonstrates that the bladder can be infected in this way by the kidney route even when the kidney itself has been spared.

89. **Paralysis of Cerebral Nerves with Exophthalmic Goiter.**—Kappis summarizes the features of a case of exophthalmic goiter with paralysis of the ocular muscles. In the last two years he has encountered another patient with the same condition and two others in whom the paralysis involved the muscles of swallowing or the soft palate. He has also compiled from the literature forty cases of paralysis of the ocular muscles and nine cases of actual bulbar paralysis with or without ophthalmoplegia. These bulbar cases all terminated fatally in a short time; the bulbar symptoms developed in the course of a rapid and severe Basedow syndrome. In five other cases the bulbar paralysis was less pronounced. These and other cases reviewed suggest that there must be some disturbance in one or more nuclei or fibers in the medulla oblongata, and the lack of pathologic anatomic findings is because this region has seldom been examined properly in such cases. If series of sections fail to reveal anything pathologic, then the trouble must have been a myasthenic disturbance rather than true paralysis. The practical lesson taught by the material reviewed is that the paralysis does not develop until the exophthalmic goiter has existed for some time; if the syndrome had been cured, the paralysis would not have manifested itself. Consequently the exophthalmic goiter syndrome should not be allowed to progress indefinitely but should be cured before irreparable lesions have developed, and he regards operative removal of the goiter as the most certain measure at our disposal. All the symptoms retrogress more readily, he says, after an early operation, while it has no mortality to speak of. It is harmless, protects against irreparable damage and cures the Basedow syndrome, he says, so that an early operation should be urgently advocated.

Münchener medizinische Wochenschrift

February 21, LVIII, No. 8, pp. 393-440

90 Technic for Intravenous Injections. (Zur Methodik der Venenpunktion und der intravenösen Injektionen, insbes. auch solcher von undefibriniertem Menschenblute.) F. Moritz.
91 Technic for Intravenous Injections of Salvarsan. J. Iversen.
92 Idem. J. Benario.
93 Salvarsan in Frambesia. R. P. Strong.
94 Roentgen Rays in Diagnosis of Gastric Ulcer and Cancer. M. Haudek.
95 Nature and Treatment of Osteomalacia. H. Cramer.
96 *Epidural Injections in Sciatica. P. Glimm.
97 *Cancer in Bavaria. (Ergebnisse der Krebsstatistik des Königreiches Bayern in Jahre 1909.) F. A. Theilhaber.
98 Defect in Pectoralis Muscle and High Shoulder. (Zur Lehre vom Pektoralisdefekt und Schulterhochstand.) R. Pürckhauer.
99 Successful Removal of Racemose Angioma of Brain. (Kavernöses Angiom des Gehirns; mit Erfolg operiert.) E. Baum.
100 History of the Telecardiogram. F. Pick.

96. **Epidural Injections in Sciatica.**—Glimm's experience confirms that reported by Blum and others recently in regard to the prompt and permanent cure of sciatica by epidural injection of about 20 c.c. of physiologic salt solution or a weak anesthetic. His best results were obtained with this amount of Schleich's No. II solution. This proved effectual in five of seven cases of inveterate sciatica as also in a case of tedious and rebellious coccygodynia resulting from a fall in a girl of 12. In this latter case the pain was banished permanently by a single injection of 10 c.c. of a 0.25 per cent. solution of cocain. The epidural injection also cured four or five youths with nocturnal enuresis; the one uncured patient proved to have

tuberculosis of the bladder. In the sciatica cases Glimm always stretched the nerve to supplement the injection, doing this ten minutes after the latter, and he regards the stretching as an important factor in the permanent cure.

97. See Berlin Letter in THE JOURNAL, March 18, p. 827.

Wiener klinische Wochenschrift, Vienna

February 23, XXIV, No. 8, pp. 263-298

101 Action of Epinephrin on Unicellular Organisms. (Wirkung des Adrenalins auf einzellige Organismen.) O. Schwarz.
102 *Calculi in Lower Ureter. (Klinik und Therapie der Steine im Beckenteile des Ureters.) F. Necker and K. Gagstatter.
103 Measurement of Permeability of the Nose. (Messung der Durchgängigkeit der Nase für den Luftstrom.) G. Gaertner.
104 Nature of Nevus Cells. Kreibich.
105 Technic of Puncture of Bone Marrow. (Knochenmarkspunktion.) G. Ghedini.

102. Calculi in the Lower Ureter.—Necker and Gagstatter give the details of sixteen operative cases and emphasize the evils of the dilatation of the ureter sure to follow obstruction by a concrement in the lower portion, not to mention the danger of retention and infection of the kidney above. If the concrement does not change its position notwithstanding attacks of colic showing that the ureter is trying to push it along, there is not much hope of its spontaneous expulsion. It may be possible to dislodge it by Jahr's method, injecting a lubricant under pressure to distend the passage. If this fails, operative measures are indicated. The experiences related indicate that only small, smooth-walled stones, the ureter still showing no signs of dilatation, are capable of being spontaneously expelled. If the Roentgen rays show that the stone can turn on its axis, this indicates a preceding dilatation of the ureter which in turn suggests that the peristalsis of the ureter walls must have been enfeebled by the distention and consequently operative measures are required without further delay. Even if the stone is expelled into the bladder, all trouble is not certainly past, as the stone may become impacted in the urethra; this happened in one of the cases reported, external urethrotomy becoming necessary at last. In the fifteen cases of extraperitoneal ureter lithotomy, the wounds healed smoothly without a fistula. Adding these to Jeanbrau's compilation of sixty similar operations, the mortality therewith is seen to be 1.35 per cent. in seventy-five operations, illustrating the progress realized in recent years in these difficult urologic operations.

Zentralblatt für Chirurgie, Leipsic

February 25, XXXVIII, No. 8, pp. 265-304

106 *Snow-Shoer's Fracture. (Typische Verletzungen der Schneeschuhläufer.) A. G. Oberst.

106. Snow-Shoer's Fracture.—Oberst gives illustrations of these peculiar twisting fractures as he has observed them in ten cases. When the toe of the snow-shoe catches and is held by some obstruction, the other foot goes on and this twists the leg in such a way that it is liable to fracture the bone in a typical manner when the foot is fastened immovably to the shoe. Prevention should aim to leave the foot looser.

Zentralblatt für Gynäkologie, Leipsic

February 25, XXXV, No. 8, pp. 297-336

107 Bacteriologic Study of Puerperal Fever. (Ueber saprisches und septisches Wochenbettfieber nebst kritischen Bemerkungen zu den Fromme'schen Verfahren zur Differenzierung der saprophytären und pathogenen Streptokokken.) O. Bondy.
108 *Cancer of Stump of the Cervix Uteri. (Karzinom des Cervixstumpfes nach supravaginaler Amputation des myomatösen Uterus.) R. Ekler.
109 *Plastic Operation for Prolapse of Uterus, and Cystocele. (Interpositio uteri vesicovaginalis — Wertheim-Schauta — nach Keilresektion oder vaginaler Amputation des Uterus.) A. Löwit.
110 Spontaneous Gangrene of Both Ischiorectal Fossæ. S. Leyzerowicz.

108. Carcinoma in Stump of the Cervix Uteri.—Ekler reports a case in which four years after supravaginal amputation of a myomatous uterus, cancer developed on the stump. There was no microscopic trace of cancer at the time of the operation, and he is convinced that the cancer developed independently of the preceding operation and that this is the fact in most cancer cases of this kind. He urges systematic reexamination of patients after operations for myoma to obtain better knowledge of conditions in respect to cancer later.

109. Plastic Operation for Prolapse.—Löwit states that the Wertheim-Schauta operation has been done in 119 cases at the Rothschild Hospital at Vienna; it was modified in thirteen cases by wedge resection of the uterus before bringing it down to serve as the support for the bladder. In eight other cases the uterus was amputated, leaving only the cervix to form the pad to sustain the cystocele. The results were very good at the time, and also a year later in the patients whose reexamination was possible.

Zentralblatt für innere Medizin, Leipsic

February 25, XXXII, No. 8, pp. 193-224

111 *Etiology of Amenorrhea. F. Rosenberger.

111. Etiology of Amenorrhea.—Rosenberger declares that amenorrhea should always arouse concern; it may be the first symptom of acromegaly to which it stands in about the same relation as ordinary goiter does to exophthalmic goiter, the hypophysis cerebri being so often involved. The amenorrheic should take special pains to avoid chilling, especially of the feet, and every catarrhal affection should be treated with great care. Three such patients in his practice had serious sinusitis, commencing in one case at the time the menses became irregular. Special care should also be paid to treatment of syphilis in this connection; it may be injuring the hypophysis even when there are no apparent manifestations elsewhere. His experiences further indicate that a pregnancy is liable to aggravate disease of the pituitary body. He discusses the points in which morbid amenorrhea resembles and differs from natural amenorrhea in pregnancy and after the menopause. Acromegaly is the form of amenorrhea in which there is sugar in the blood in almost half the cases, and there is hypertrophy of the bones of the face.

Gazzetta degli Ospedali e delle Cliniche, Milan

February 19, XXXII, No. 22, pp. 227-242

112 The Chills in Malta Fever. (Il brivido freddo nell'infezione melitense.) F. Lastaria.

February 23, No. 24, pp. 251-258

113 Present Status of Leprosy in Sicily. Castorina.
114 Chronic Cystic Mastitis and Epithelial Tumors of the Breast. G. Marangoni.

Policlinico, Rome

February 19, XVIII, No. 8, pp. 229-260

115 *The Campaign Against Malaria in Sicily. Donzello.

February 26, No. 9, pp. 261-292

116 Pathogenesis of Cholera Intoxication. T. Pontano.
117 Iodo-Iodid Injections in Tuberculous Peritonitis. (Peritonite tubercolare curato con il metodo Durante.) C. Centra, N Scime and A. Ugolini.

February, Surgical Section No. 2, pp. 49-96

118 *Gonorrheal Septicemia. (La presenza del gonococco nel sangue circolante dei blenorragici.) F. Lofaro.
119 Tincture of Iodin in Sterilization of the Skin. (Ricerche istologische e batteriologische sul metodo di Grossich.) A. Duse.

February, Medical Section No. 2, pp. 49-96

120 Connection Between Lipoid Content of the Serum and the Wassermann Reaction. P. Alessandrini.
121 *Practical Importance of the Wassermann Reaction in Syphilis. G. Gavini.
122 Experimental Endocarditis. F. Fulci.

115. The Antimalaria Campaign in Sicily.—Donzello states that in this hotbed of malaria the campaign has been kept up during the winter, in the effort to effect a permanent cure. The people are debilitated from repeated infections and notwithstanding the energetic quinin medication and tonics, the malaria recurred in 5.70 per cent. This, however, is a tremendous gain over preceding years, and the general condition of all was much better than usual, the spleens being materially reduced in size. Last summer, preventive quinin treatment was given to 33,387 persons, 0.4 gm. (6 grains) being given every second day. Not a case of pernicious malaria developed in the district; only 2.6 per cent. among the agriculturists and 1.3 per cent. among the miners had febrile attacks and these yielded promptly to curative doses of quinin. There was no mortality. The benefits from the campaign are thrown into brighter light by the large numbers having malarial fever in the country outside of the protected zone. The work is under the auspices of the Red Cross.

XUM

118. **Gonococcus in the Blood.**—Lofaro found gonococci in the blood in 58.2 per cent. of sixty-seven cases of acute or chronic gonorrheal urethritis; in all the cases of chronic urethritis with stricture; in over 66 per cent. of cases with glandular involvement, in 50 per cent. of the cases of vulvitis and vaginitis, and in over 73 per cent. of the cases of urethritis with epididymitis.

121. **The Wassermann Reaction in Syphilis.**—Gavini has been studying the Wassermann test as applied to 367 syphilitics, seventy suspects and ninety-six healthy persons. The findings show that a negative reaction does not exclude syphilis but that an intense and even a moderate reaction is of extreme diagnostic importance. The subsidence of the reaction under treatment is a reliable index of the efficacy of treatment.

Riforma Medica, Naples

February 20, XXVII, No. 8, pp. 197-224

123 Case of Writer's Cramp with Jacksonian Epilepsy. (Mogigrafia ed epilessia jaksoniana.) E. Morselli.
124 Serodiagnosis of *B. Coli* Infection. S. Fichera.
125 •The Diaphragm Reflex. C. Quadrone.

125. **The Diaphragm Reflex.**—Quadrone has been studying the diaphragm reflex in over 2,000 persons and has become convinced that it is a very instructive sign of normal functioning; its absence indicates paresis or paralysis of the diaphragm or neuritis of the phrenic nerve, except in elderly persons and in the very obese, in whom the parts have lost their elasticity or the motor reaction is invisible. The absence of the reflex may throw light, he says, on obscure affections compromising diaphragm functioning, and also on the prognosis in acute infectious disease. The reflex is a physiologic cutaneous reflex, elicited by tickling the tip of the nipple or the areola. This induces a contraction of the diaphragm which is readily perceived as the patient lies on his back, against the light, the head nearly flat, the legs slightly flexed. As the diaphragm contracts the ensiform appendix is drawn inward and sometimes also the inner portion of the costal arch.

Norsk Magazin for Lægevidenskaben, Christiania

March, LXXII, No. 3, pp. 227-416

126 Histologic and Pathologic Study of General Paralysis and Other Psychoses and Organic Disease in Central Nervous System. N. B. Grøndahl.
127 •Three Cases of Fat Embolism with Punctate Hemorrhages in the Skin. G. Benestad.
128 Technic for Localization of Foreign Bodies in the Eye, and Their Extraction. (Om Röntgenlokalisation av okulære fremmedlegemer og deres extraktion fra glaslegemet.) S. Holth.
129 Heredity and Degeneracy. (Kritik av degenerationslæren.) H. Evensen.

127. **Fat Embolism.**—Benestad remarks that no cases of fat embolism are reported except the severe ones with fatal outcome. Most of these cases followed orthopedic operations and fractures. The view is gradually gaining ground, however, that fat embolism is a much more frequent occurrence than formerly was supposed possible. Leading authorities have long insisted on the difficulty of diagnosing it, but in three cases in his practice in the last six months there were punctate cutaneous hemorrhages, and he thinks that this sign may reveal the fat embolism in many cases which otherwise would escape detection. He has been unable to find similar cases on record. His patients were workingmen from 26 to 36 years old, with fracture of the tibia or femur. The patients were brought almost at once to the hospital, and Benestad was impressed with their restlessness which interfered with the care of the fracture while they seemed extremely apathetic and stupid. The apathy was pronounced two or four hours after the accident and kept increasing for a few days. In one case it amounted to actual stupor. It took them several seconds to understand what was said to them; the next moment they had apparently forgotten it. They all said that they had only a vague remembrance of what happened during the first two or three weeks after their accident—it seemed like a dream. There was no cyanosis but they all had weak pulse, requiring stimulants—rate 110 in one case. All complained that it was hard for them to breathe. This difficulty in breathing came on fifteen minutes after the fracture in one case and long persisted. One man had a slight cough and the others coughed violently, the cough being the predominant symptom. All complained of pain in their lungs more than at the point of the fracture. There was no dulness or blowing over the lungs but here and there small bubbles could be heard over both lungs at the close of inspiration, and there was some expectoration; the sputum exactly resembled that of pneumonia in one case. The temperature was high at first, and then kept at a subfebrile height. The diagnosis of pneumonia seemed inevitable when the discovery of the petechiæ cleared up the diagnosis. The punctate hemorrhages in the skin were numerous, and they did not subside under pressure of the finger. They were disseminated symmetrically over the sides of the neck, over the chest and part of the abdomen. The petechiæ disappeared after a week, the cough and expectoration gradually subsided, the temperature returned to normal, and by the end of the second week the patient was well and lively. All the patients recovered. Benestad says that nothing but the assumption of fat embolism will explain these cases. The fracture was a simple one in all, without dislocation.

Ugeskrift for Læger, Copenhagen

February 23, LXXIII, No. 8, pp. 253-288

130 Tuberculosis in the Holack District. Kierkgaard.
131 Sulphuric Acid Used in Manufacture of Cereals and Resulting Intestinal Disease. K. Isager.

Books Received

Books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for review in the interests of our readers and as space permits.

LANDMARKS AND SURFACE MARKINGS OF THE HUMAN BODY. By L. Bathe Rawling, M.B., B.C., F.R.C.S., Surgeon with Charge of Out-Patients, Demonstrator of Practical and Operative Surgery, Late Senior Demonstrator of Anatomy at St. Bartholomew's Hospital. Fourth Edition. Cloth. Price, $2 net. Pp. 96, with 29 illustrations. New York: Paul B. Hoeber, 1911.

HUGHES' PRACTICE OF MEDICINE. Including a Section on Mental Diseases and One on Diseases of the Skin. Revised and enlarged by R. J. E. Scott, M.A., B.C.L., M.D., Attending Physician to the Demilt Dispensary. Tenth Edition. Leather. Price, $2.50 net. Pp. 878, with 63 illustrations. Philadelphia: P. Blakiston's Son & Co, 1911.

AN INTRODUCTION TO BACTERIOLOGICAL AND ENZYME CHEMISTRY. By Gilbert J. Fowler, D.Sc., F.I.C., Lecturer in Bacteriological Chemistry in the Public Health Department, Victoria University of Manchester. Cloth. Price, $2.10 net. Pp. 328, with 28 illustrations. New York: Longmans, Green & Co.

ANNUAL REPORT OF THE BUREAU OF HEALTH FOR THE PHILIPPINE ISLANDS. From July 1, 1909, to June 30, 1910. Victor G. Heiser, M.D., Director of Health, Passed Assistant Surgeon, U. S. Public Health and Marine-Hospital Service. Paper. Pp. 193, with illustrations. Manila, 1910.

HOOKWORM DISEASE. A Handbook of Information for All Who Are Interested. Prepared Under the Direction of the State Board of Health of Florida, by Dr. Hiram Byrd, Assistant State Health Officer. Publication 79. October, 1910. Paper. Pp. 70, with 13 illustrations.

A LABORATORY MANUAL FOR THE SOLUTION OF PROBLEMS IN BIOLOGY. By Richard W. Sharpe, Instructor in Biology in the De Witt Clinton High School, New York. Cloth. Price, 75 cents. Pp. 352, with 86 illustrations. Chicago: American Book Co., 1911.

ESSENTIALS OF BIOLOGY PRESENTED IN PROBLEMS. By George William Hunter, A.M., Head of the Department of Biology, De Witt Clinton High School, New York. Cloth. Price, $1.25. Pp. 448, with illustrations. Chicago: American Book Co., 1911.

ALCOHOLIC FERMENTATION. By Arthur Harden, Ph.D., D.Sc., F.R.A., Head of the Biochemical Department, Lister Institute, Chelsea. Cloth. Price, $1.25 net. Pp. 128, with illustrations. New York: Longmans, Green & Co., 1911.

A POCKET-BOOK OF TREATMENT. By Ralph Winnington Leftwich, M.D., Late Assistant Physician to the East London Children's Hospital. Leather. Price, $1.70 net. Pp. 348. New York: Longmans, Green & Co.

REPORT OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION (N. H.). Being the Fifty-Sixth Report on the Public Schools of New Hampshire. Cloth. Pp. 459. Henry C. Morrison, Superintendent, Concord. 1910.

THE SERPENT'S TRAIL, OR, MEMOIRS OF HARGLD BAGOTE, PHYSICIAN. A Tale of the South and of Cuba. By F. B. Cullens. Cloth. Price, $1.25. Pp. 168. New York: Broadway Publishing Co.

TUBERCULOSIS OF FARM ANIMALS. Bulletin 149, University of Illinois Agricultural Experiment Station. By Charles F. Briscoe and W. J. MacNeal. Urbana, Ill., February, 1911. Paper. Pp. 431.

ANNUAL REPORT OF THE NEWTON HOSPITAL CORPORATION. For the Year Ending Aug. 31, 1910. Newton Hospital, 2014 Washington Street, Newton Lower Falls, Mass. Paper. Pp. 31.

TENTH BIENNIAL REPORT OF COLORADO STATE BOARD OF HEALTH. Jan. 1, 1909, to Dec. 31, 1910. Cloth. Pp. 137. Hugh L. Taylor, Secretary, Denver, Colo. 1910.